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PREFACE

In preparing this little work on Entrance Geography, we have endeavored to treat the subject in such an order as will develop the observing and reasoning faculties, as well as the memory.

We should study Geography that we may become acquainted with the earth, the habitation of man, that we may know the advantages of the climate and the natural resources of each part of its surface, and the way man is profiting by these natural advantages. The subject has, therefore, been presented in the following order:

(1) **The earth** as a part of the solar system.

(2) **The surface** of the earth and its natural divisions of land and water.

(a) **General**—The definitions taken up topically.

(b) **Particular**—The position, surface, drainage and coast-features of the continents.

(3) **The wealth** of land and sea which interests man, and how man is taking advantage of this for self, society and mankind. This takes up the countries, forms of government, commercial centres, products, exports, imports, and commercial routes.

The matter has been carefully selected and arranged, and the matters of most importance have been set up in large and heavy-faced type. The time usually occupied in copying notes can now be saved; the energy usually spent in this way can be more profitably employed. In this way, both teacher and pupil will be assisted in covering the work prescribed for us by the Department of Education.

Toronto, July 28th, 1923. C.G.F.

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THE UNIVERSE

The Universe is that great system of material things which, being the work of the Creator, is called Creation. It consists of all the heavenly bodies and the material things—animal, vegetable, or mineral—which are associated with each. During the day, these heavenly orbs are hidden to our view, because the light of our sun is so much greater to us than theirs; but in the darkness of the night these luminous realms of space shine out in great beauty, giving us some idea of their countless number.

Each orb is in motion, rotating on its axis like a top, and also revolving through space in an orbit of its own; but they are placed at such great distances from one another and are kept in their own courses by the marvellous forces (laws) of the Almighty that they never clash. Each is an ellipse controlled by two forces acting together —at the same time—the one impelling the orb forward, and the other drawing it towards the centre of its orbit.

These heavenly bodies are designated by different names. When their shape is considered, they are called **orbs, globes, or spheres,** because they are ball-like. When thought of as the abode of people, they are called worlds; and each one has been given a proper name to distinguish it from the other heavenly bodies. When their relation to each other is considered, they have been divided into six general classes—**fixed stars, planets, satellites, asteroids, meteors and comets.**

1. A Fixed Star is a glowing heavenly body which shines with its own light and is supposed to be, like our sun, the centre of a system of worlds which revolve around it.

The fixed stars were so named by the ancients because they seemed to keep the same relative position in the firmament.

2. **A Planet** is a heavenly body forming part of our solar system and revolving around our sun. The planets were so named by the ancients because their movement in the firmament seemed to be so irregular. They are cooled bodies revolving around a luminous body—a fixed star—and they shine with a borrowed light, reflecting the light of the sun. They do not twinkle like the fixed stars.

Other fixed stars besides our sun are supposed to have planets revolving around them; but on account of their great distance from us, and their relative smallness, we cannot see them even with our most powerful telescopes.

3. **An Asteroid,** or Planetoid, is any one of a great number of small planets whose orbits lie between the orbits of Mars and Jupiter. They are of various shapes and sizes, and may be the ruins of a great planet whose orbit was here.

4. **A Meteor** is a shooting or falling star—a luminous heavenly body appearing for a few moments in the sky and then disappearing. At certain parts of the earth's orbit we pass through showers of these meteors. These showers of meteors are named from the constellation from which they seem to fall.

5. **A Comet** is a luminous heavenly body generally consisting of a head or nucleus and a long shining tail. At one part of its orbit, it is near the sun; at the other part, it is very far away from it. Some of them take many years to return, and some never return (?).

6. **A Constellation** is a number of fixed stars which, for easy identification have been grouped within the limits of an imaginary figure, which is supposed to be traced upon the vault of heaven. Modern astronomers recognize eighty-three constellations, among which we might mention the twelve Signs of the Zodiac.

THE SOLAR SYSTEM

The Universe is divided into Systems, each composed of a fixed star, or sun, and a number of heavenly bodies revolving around it, and forming a family of worlds.

The Solar System is that part of the universe which is compIsed of the sun and the planets and their satellites which revolve around it and from it derive their heat and light.

The Sun, the "King of Day," is a fixed star, the brightest object in our heavens. It is 865,000 miles in diameter, and it rotates on its axis once in 29 days 5 hours.

We depend on it for light and darkness and the change of our seasons. Heat and cold, winds, clouds, rains and rivers are its works; and all life, animal or vegetable, depends on it.

The Planets of the Solar System

Others, as yet undiscovered, may exist.

Those of other systems are too far away to be seen by us.

Name of Planet	Diameter in 1000 mi.	Distance from the Sun	A Day in hrs., min.	A Year in days	Satellites
Mercury	3.200	35–55*	24 5½	87+	.....
Venus	7.660	66–67*	21 21	224+	.....
Earth	7.916	91–95*	24 0	365+	1
Mars	4.2	141†	24 37	687	2
Asteroids—More than 250 of these have been named.					
Jupiter	85.	483†	9 55	12 yrs.	5
Saturn	68–74	883†	10 15	29½ yrs.	8
Uranus	31.	1800	.....	84 "	4
Neptune	37.	2800	.....	164 "	1

*Perihilion and aphelion in millions of miles.

†Mean distance from the sun.

THE EARTH

The Earth is a planet—a heavenly body revolving around the sun.

Shape—It is nearly round like a ball—flattened at poles.

Proofs that the earth is round:—

1. The masts of ships, approaching from any direction, are seen first, and the masts of departing ships are seen last.
2. On home-bound ships, the tops of mountains are seen first, while on out-bound ships, the tops of high objects are seen last.
3. By ascending the mast, one's outlook is increased.
4. The shadow of the earth on the moon, as seen during an eclipse of the moon, is **always** round.
5. The sun rises earlier to those east of us, and later, to those west of us.
6. As we travel southward, new constellations rise above the southern horizon while others seem to sink beneath the northern horizon.
7. By continuing in the same direction—any direction—men have travelled around the world.
8. The other heavenly bodies are seen to be spherical.

Size—The **Diameter** is about 8,000 miles.

The **Circumference** is about 25,000 miles.

The Zenith is the point in the heavens directly overhead.

The Nadir is the point in the heavens directly under foot.

The Horizon is the circle where the earth and sky appear to meet. It is the circle of vision and may be increased by taking a higher position.

The Antipodes are those living on the surface of the earth directly opposite to us. Their seasons and days are similar to ours but at opposite times of the year.

A Hemisphere is a half-sphere—Northern or Southern; Eastern or Western.

THE DAILY MOTION OF THE EARTH

The Daily, or Diurnal, Motion of the earth is its rotation on its axis towards the east. It is performed in 24 hours. It produces day and night.

The Axis of the Earth is the imaginary line passing through the centre of the earth about which the earth turns.

The Poles—North and South—are the points at the ends of the axis of the earth.

The Earth receives her light from the sun—the "King of Day." As the earth is a sphere, the sunlight can fall on only half of her surface at one time; but as the earth rotates on her axis, each part of her surface is turned to the sunlight and produces the succession of daylight and darkness—day and night.

We say the earth has this daily motion (1) because the sun the moon and the stars appear to move round us once a day. If the earth does not rotate, the sun must move at the rate of 600,000,000 million miles a day—25 million miles an hour—and this is slow compared with the speed at which some of the fixed stars would need to travel to complete the daily circuit; (2) because if the sun revolves around the earth, the larger object revolves around the smaller, which is not seen elsewhere in nature; (3) because the sun rises earlier on places east of us and later on places west of us.

The Circle of Illumination is the line dividing the part of the surface of the earth in light from that part in darkness. It is constantly changing as the earth rotates.

A Solar day is 24 hours—the average time from noon to noon. This period is divided into day and night.

Noon is the moment when the sun shines directly south of us, that is, on our meridian.

THE YEARLY MOTION OF THE EARTH

The Yearly or Annual Motion of the earth is its revolution around the sun. It is performed in about 365¼ days.

The Orbit of the Earth is its path in the heavens during its annual motion. It is an ellipse—the sun in one focus.

The Perihelion is that part of the earth's orbit which is nearest the sun—91,000,000 miles.

The Aphelion is that part of the earth's orbit which is farthest away from the sun—95,000,000 miles.

The Plane of the Earth's Orbit is the space bounded by the earth in its yearly circuit around the sun.

The Ecliptic is the apparent course of the sun among the stars as the earth moves in its orbit around the sun.

As the earth proceeds in its circuit, it is noticed in the Northern Hemisphere, that each day the sun at noonday rises higher above the horizon till he shines vertically on places 23½ degrees north of the Equator—on the Tropic of Cancer. He then seems to turn and recede towards the south, till he shines vertically over places 23½ degrees south of the Equator—over the Tropic of Capricorn.

When the sun shines vertically over the Tropic of Cancer, the circle of illumination extends 23½ degrees beyond the North Pole, and indicates the position of the Arctic Circle. It also falls 23½ degrees short of the South Pole and indicates the position of the Antarctic Circle. When the sun shines vertically over the Tropic of Capricorn these conditions are reversed.

These changes in the angle at which the sun's rays fall upon the different parts of the earth's surface are caused by

(1) the earth moving in her orbit.

(2) the axis of the earth inclining 66½° to the plane of its orbit—23½° from the perpendicular.

(3) the axis of the earth always pointing in the same direction.

DAY AND NIGHT

The relative length of day and night varies very much according to (1) the time of the year, and (2) the distance of the place from the Equator. **The Equinox** is the time when the day and night are equal all over the world. The sun then shines vertically on the Equator and illuminates the earth from pole to pole.

The Vernal Equinox occurs on March 21st.

The Autumnal Equinox occurs on September 21st.

As the sun ascends towards the Tropic of Cancer, the day in the Northern Hemisphere becomes gradually longer than the night. The farther north, the greater is the difference, and within the Arctic Circle, the sun shines, for a time, during the whole 24 hours. During this time, the daylight in the Southern Hemisphere becomes gradually shorter than the night. The farther south, the greater is the difference, and within the Antarctic Circle there is darkness, for a time, during the whole 24 hours.

Then the sun recedes towards the south, and the length of day and night slowly becomes more equal, till the sun shines vertically over the Equator, and we again have equal day and night. Then crossing the Equator, the sun descends towards the Tropic of Capricorn, and the conditions in each hemisphere are reversed.

Our Summer Solstice is our longest day—about June 21st — when the sun shines vertically over the Tropic of Cancer.

Our Winter Solstice is our shortest day—about December 21st—when the sun shines over the Tropic of Capricorn.

By drawing a diagram of the earth, showing the position of the circle of illumination at any period, the relative length of the day and night of any place is shown by drawing its parallel of latitude. This shows the parts in light and darkness. It does not vary at the equator.

THE SEASONS

The Earth depends upon the sun for heat; and the influence the sun exerts upon any part of the earth will depend upon how nearly vertically its rays fall upon the given place. This is shown daily by the relative heat of the sun-beams at morning, noon and evening.

A year is about 365¼ days—the time it takes the earth to make one revolution around the sun. In practice, each fourth year, except the century years, is called a Leap Year of 366 days; the others, except each fourth century year, are called Common Years of 365 days.

In the Temperate Zone the year is divided into four characteristic periods called Spring, Summer, Autumn and Winter, differing in their temperature and amount of rainfall or snowfall, but occurring with that regularity which we find so constantly in Nature. These periods are called the seasons.

These seasons are brought about by our changing our relative position to the sun. (1) the earth revolves around the sun, (2) the axis always points in the same direction, and (3) it inclines to the plane of the orbit at an angle of 66½ degrees. Thus the angle at which the sunbeams fall upon the different parts of the earth is constantly but regularly changing and the result is a constant succession of seasons, each modified by the peculiar conditions surrounding the region. In the Torrid Zone, the year is modified into three seasons—the warm, the dry and the rainy.

Spring is the season for seedtime when the heat and moisture of the earth is suited to the sprouting of seeds.

Summer is the season for maturing vegetation. It is the warmest of the seasons.

Autumn is the season for gathering the matured vegetation into the storehouse.

Winter is the season for rest in the vegetable world.

IMAGINARY LINES

Any line passing directly around the earth is called a circle.

A Circle is divided into 360 equal parts called degrees.

A Great Circle is one whose plane passes through the centre of the earth.

A Small, or Lesser Circle is one whose plane does not pass through the centre of the earth.

The Equator is the imaginary line passing around the earth at an equal distance from the Poles.

Parallels of Latitude are imaginary lines passing around the earth parallel to the Equator. Four of these are very important, dividing the earth into five zones.

The Tropic of Cancer is the imaginary line passing around the earth 23½ degrees north of the Equator and parallel to it. Over this line, the sun shines vertically on June 21st.

The Tropic of Capricorn is the imaginary line passing around the earth 23½ degrees south of the Equator and parallel to it. Over this line the sun shines vertically on December 21st.

The Arctic Circle is the imaginary line passing around the earth 23½ degrees from the North Pole and parallel to the Equator. This line is indicated by the circle of illumination on June 21st, and December 21st.

The Antarctic Circle is the imaginary line passing around the earth 23½ degrees from the South Pole and parallel to the Equator. This line is indicated by the circle of illumination on December 21st and June 21st.

Meridian Circles pass around the earth from Pole to Pole and cut the Equator at right angles.

A Meridian Line is one-half of a meridian circle, and reaches from Pole to Pole.

A First, or Prime Meridian is the meridian passing through some selected place from which longitude is reckoned. Our First Meridian is that of Greenwich.

LATITUDE AND LONGITUDE

Latitude is the distance of a place from the Equator. It is usually given in degrees, minutes and seconds. **The "High Latitudes"** are the Polar Regions.

The Latitude of a place can be determined by finding the average altitude of the North Star; or by observing the altitude of the sun. This varies according to the season.

The Greatest Latitude possible is 90°—north or south. This is at the poles.

Degrees of Latitude are equal parts of equal circles.

Longitude is the distance of a place east or west of the First Meridian—usually given in degrees, minutes and seconds.

Our First Meridian passes through the Royal Observatory at Greenwich, England. Other nations choose other first meridians, such as that of Washington or Paris.

The Greatest Longitude possible is 180°—East or West.

Degrees of Longitude are not all equal—**the circles are unequal.**

The Longitude of any place can be determined by comparing its time with that of Greenwich and allowing 15° for each hour of difference—the average rate at which the sun appears to go round the earth. If the longitude of any two places be known, the difference in their time can easily be determined.

Standard Time is the system of uniform time which has been adopted by the railways of Canada and the United States. The continent is divided into four sections, each 15° wide, and all the trains of each section are run by the time of its central meridian. These times are named: **Eastern Time** (75°), **Central Time** (90°), **Mountain Time** (105°), and **Pacific Time** (120°). The time of each section differs, by exactly one hour, from that of the adjacent sections.

DIRECTION

That we may refer conveniently to the position of objects on the surface of the earth, men have chosen a number of directions which are constant all over the world. These are North, South, East and West—the Cardinal points of the Compass—and also the intermediate points north-east, north-west, south-east and south-west.

We can know these directions:—

1. **By the Sun**—It rises in the east and sets in the west. This is absolutely true only at the equinoxes.
   At noon, it is straight south of us who live in the Northern Hemisphere
2. **By the Moon**—It rises in the east and sets in the west.
3. **By the North Star**—It is visible from all parts north of the equator.
4. **By the trees of the forest**—The moss grows on the north —the shady side of the trunk.
5. **By the Mariners Compass**—an instrument containing a magnetized needle, which, when balanced and allowed to swing freely, always points to the magnetic pole. It is used by sailors in steering a vessel out upon the trackless ocean where, at times, sun, moon and stars are invisible.

A Map is a chart or plan of a portion of the earth drawn to a regular scale, showing the boundaries of the countries and the **Relative Position** of the mountains, rivers, seas, oceans and islands to one another, as well as the cities and towns; and by means of parallels of latitude and meridian lines, indicating the **Absolute Position** of the district on the surface of the earth, and its direction from every other part of the earth's surface. These lines are curved to represent the curvature of the surface of the earth.

A Map of the Heavens represents the relative position of the stars as they appear in the sky.

THE MOON

The Moon is the satellite of the Earth. It is a cold heavenly body revolving around a planet. It has been called "The Queen of the Night," and, like the planets, its light is a reflection of the light of the sun. Its diameter is about 2,000 miles; its circumference, about 7,000 miles.

The Moon has two motions. It rotates on its axis once a month and revolves around the earth in an orbit of its own. This orbit is an ellipse; the earth is in one focus. This orbit is completed in 27 days, but it takes the moon 29 days—a lunar month—to come into the same relative position with the sun and the earth. The moon moves in its orbit, towards the east; but as the earth rotates on its axis towards the east, the moon appears to pass from east to west daily.

Only one-half of the surface of the moon is illuminated at any given time. As the moon proceeds in its orbit and its relative position to the sun and the earth changes, it seems to grow and then to decrease, as it turns more of its bright side to us and then away from us. This waxing and waning of the moon is called "The Phases of the Moon."

"The Phases of the Moon" are the changing appearances of the moon as it continues in its orbit around the earth, turning more, all, and then less, of its illuminated surface towards us. The principal phases of the moon are (1) the New Moon, (2) the First Quarter, (3) the Full Moon, and (4) the Last Quarter. The Crescent is the waxing or growing moon—the New Moon. The Full Moon is that phase of the moon which shows us the full circle of illumination. The sun and moon are then on opposite sides of the earth, and all three are almost in a straight line.

The plane of the moon's orbit is not parallel to the plane of the orbit of the earth.

ECLIPSES

An Eclipse is the obscuring or darkening of the light of a heavenly body by some object other than a cloud. The term is applied specially to the darkening of the light of the sun and the moon which occurs at certan times in the moon's circuit. It may be a total or a partial eclipse.

A Lunar Eclipse is the obscuring of the light of the moon, caused by the moon's passing through the shadow of the earth. It occurs only at full moon, when the sun, the earth and the moon are in a straight line. If the plane of the moon's orbit were parallel to the plane of the orbit of the earth, there would be an eclipse of the sun and of the moon every month.

A Solar Eclipse is the obscuring of the light of the sun caused by the moon's passing between the earth and the sun and shutting out its light. It occurs only at new moon, when the sun, the moon, and the earth are in a straight line. When a Partial Eclipse of the sun occurs, the centre of the moon is not in the same straight line with the centre of the sun and the earth, and only part of the sun's disc is obscured. A Total, or an Annular Eclipse of the sun occurs when the centres—of the sun, the moon and the earth—are in a straight line. If the moon is in perigree, it will appear large enough to hide the whole disc of the sun and the eclipse will be total, showing the corona for a moment; but if the moon is in apogee it will produce an Annular Eclipse of the sun, the shadow covering only part of the face of the sun and showing a ring of sunshine around the moon.

A Transit is the passing of a planet across the face of the sun. Only those planets which are nearer to the sun than we are can thus pass across the face of the sun.

An Occultation is the passing of a star behind the moon.

THE TIDES

The Tide is the rise and fall of the waters of the ocean, as seen on the land. It is caused by the attraction of the moon and the sun. On account of the greater distance of the sun, its influence is less than that of the moon.

The Flood Tide is the rising, or advancing tide.

The Ebb Tide is the falling, or receding tide.

The High Tide is when the water has reached its highest. This occurs every 12 hours 25 minutes—after the moon passes the meridian of the place and after it passes the meridian of the antipodes of the place.

The Low Tide is when the water has reached its lowest.

The Spring Tide is the extra high tide which occurs at new moon and at full moon. The sun and moon are then acting in the same straight line, and the extra high tide is the result of their combined attraction.

The Neap Tide is the comparatively feeble tide which occurs at the first, and third quarters of the moon. The sun and moon are then acting at right angles to each other, and opposing each other's influence.

In the ocean, the tidal wave follows the moon.

The height of the tide varies (1) according to the phase of the moon, (2) the position of the place on the ocean or on the shore, (3) whether on the east or west coast of the continent. The Tides on the Bay of Fundy are perhaps the highest in the world, sometimes rising to a height of about seventy feet. The great westerly movement of the water is here forced into a confined space by the closed nature of the inlet, and the tide rises very fast, reaching its highest at the head of the bay.

A Bore is a high tidal wave as it enters the mouth of a river and meets the opposing current. (Ganges).

OCEAN CURRENTS

An Ocean Current is a portion of the water of the ocean moving river-like in a certain direction called its set, and at a regular rate, called its drift.

Ocean currents are caused by temperature, or by winds, or by both, according to different theories.

(1) The cold waters of the Pole flow southward to take the place of the water evaporated from the tropical seas, and not having the speed of the equatorical regions, they lag behind and flow in a westerly direction. (2) The warmer, lighter waters of the tropical regions flow towards the poles, and the colder, heavier polar waters flow in to take their place. (3) The trade winds which blow constantly in the same direction give a westerly motion to the surface waters at the Equator, and this current is deflected to north and south by the land which intervenes.

The most important ocean currents are:—

The Equatorial Currents in Atlantic, Pacific and Indian Oceans. All flow westward, and are deflected by the continents of South America, Australia, and Africa. The deflected currents are **The Gulf Stream, The Brazil Current, The Japan Current, The Australian Current** and **The Mozambique Current.**

The Labrador, Peruvian and African Currents are cold, and there is also a regular movement of the polar waters along the floor of the ocean, towards the equator.

These currents prevent stagnation of the ocean waters; they equalize the temperature and influence the vegetation of tropical and polar regions; they wear away the coast and change the form of continents; they transport the rocks and soil adhering to icebergs and form such banks as those off the coast of Newfoundland; they distribute animal and vegetable forms of life and assist in navigation.

THE ATMOSPHERE

The Atmosphere is the envelope of air which surrounds the earth. It is supposed to be about 50 miles thick. At the sea-level the air is the densest as the pressure of the column of air resting on any part is there the greatest. But in higher altitudes, the pressure is less, and at an altitude of five or six miles, the air is perhaps too rare and cold to sustain life.

The greater part of the air is nitrogen; but it also contains oxygen to sustain animal life, and carbonic acid gas to sustain vegetable life; for animals and vegetables are dependent upon each other, the one exhales what the other needs. The air also contains moisture which the heat of the sun has evaporated from land and sea.

When air is heated, it becomes lighter, and rises, and cooler air rushes in to take its place. This air in motion is called **a wind**. On account of the unequal heating of the air at different parts of the earth's surface, the air is in constant motion, and each movement is named according to its peculiarity. A wind is said to be gentle, moderate, brisk, fresh, stiff, strong or hard according to its speed. A Zephyr is a gentle west wind; a Breeze is a brisk wind; a Gale is a strong wind; a Tempest is a violent wind; and a Storm is continuous, usually accompanied by rain and lightning.

A Draft is a confined current of air passing through some opening; a Gust is a sudden wind of short duration; a Bluster is a noisy wind; a Blast is a destructive wind; and a Squall is a sudden, violent storm. If the wind is circling in its motion it is called an eddy, a whirlwind, a tornado or a "cyclone," while the sand-pillar of the desert and the woter-spout of the ocean are said to be the products of such winds.

WINDS

During the day, the land becomes heated much more quickly than the sea. This causes the air resting on the land to become warm, to expand and rise, and the cool air above the sea moves in to take its place. But during the night the water becomes cool less quickly than the land, so that the air above the warm sea rises, and the cool air from the land moves out to take its place. This gives rise to the **land and sea breezes** which prevail in ordinary weather.

Winds have the characteristics of the regions from which they blow. A wind from the north will be cold, from the south, warm, and from the desert, dry. As it passes over a mountain range, it will be robbed of its moisture; but when coming from the ocean, it will be laden with vapor and will be warm or cold according to the nature of the current or water over which it passes.

Winds are classified according to when they prevail into constant, variable, or periodic winds; and according to their location into such classes as land and sea breezes, trade winds, etc. At certain parts of the world, and at certain seasons of the year, special winds prevail that have become noted. **The Simoon** is a hot, dry, sand-laden, pestilential desert-wind which occurs in India and Arabia. **The Sirocco** is a hot, dry, sand-laden, desert-wind which occurs in Algeria and the Mediterranean Sea. **The Harmattan** is a hot, dry, sand-laden, desert-wind which prevails from December to February on the west coast of Africa. **The Monsoon** is a north-east winter-wind which prevails on the Pacific coast of Asia. **The Typhoon** is a violent wind, with cyclonic power, which occurs in the China seas. **Hurricanes** are violent winds which occur in the Gulf of Mexico; and the **Chinook winds** are warm, dry winds, peculiar to the eastern slope of the Rockies in Alberta and the Northern United States.

CLOUDS AND MOISTURE

A Phenomenon is any wonderful appearance in nature which is the result of natural laws, as wind, rain, lightning, Northern Lights, etc.

All air contains moisture; but, under varying conditions, it assumes different forms. If the air is warm enough, this moisure remains invisible; but if it becomes chilled by meeting a cold current of air, or by rising to the higher, colder regions of the atmosphere, as in ascending the side of a mountain, or by coming in contact with a cold part of the earth—sea or land, mountain or valley—it becomes visible as a mass of condensed vapor, or water-dust.

A Cloud is a mass of water-dust high in the sky. **A Haze or Mist** is a mass of condensed vapor at or near the surface of the earth. If very dense it is called **a Fog.** Such fogs prevail off the coast of Newfoundland, and are very dangerous to navigation.

When the particles of vapor become sufficiently chilled, they combine into water-drops and fall to the earth as **Rain,** clearing the air, refreshing the plants, fertilizing the soil, wearing away the rocks to form soil, and combining to form rivers. If the vapor congeals, it forms into crystals called **Snow.** Snow crystals are of many shapes according to the temperature at which they are formed. As they fall, they form a covering for the earth, a kind of blanket, to protect the soil from the coldest temperatures of the winter weather.

Sleet is frozen rain driven by a strong wind.

Hail or Hailstones are pellets of ice falling from the sky. They are of various shapes and sizes but usually each contains a little mass of snow at its centre.

Dew is condensed vapor deposited during the night on the surface of objects that cool quickly.

Hoar Frost is frozen dew.

CLIMATE

The Weather of a place is the condition of its atmosphere, at any particular time, as regards heat or cold, wind or calm, sunshine or rain, dryness or moisture.

The Climate of a place is the characteristic condition of its weather from year to year. It may be described as dry or moist, warm or cold, regular or changeable.

The Climate of a place depends primarily on:—

a. **Its Latitude**—and the directness of the sun's rays.

b. **Its Altitude**—and the rarity of the atmosphere.

The Climate of a place is modified by:—

1. The direction of the prevailing winds—warm or cold, according as they come from warm or cold regions.
2. The presence of large bodies of water—keeping the temperature more equable and increasing the rainfall.
3. The presence of large bodies of land—decreasing the amount of rainfall and making the temperature more variable—colder in winter and warmer in summer—warmer in the day and colder at night.
4. The presence of large forests—keeping the temperature equable, attracting rain, and holding moisture.
5. The presence of ocean currents—warm or cold—influencing the atmosphere as to temperature and moisture.
6. The presence of **Mountain Ranges** (1) giving slope to the country and exposing it to warm or cold, dry or humid influences, (2) affecting the rainfall by condensing the moisture in the atmosphere, (3) forming a windbreak and deciding the direction and nature of the prevailing winds.
7. Its position at the east or west side of the cintinent.

These climatic conditions decide the fertility of the soil, the classes of vegetation, the kinds of animals, the occupations of the people, and largely, the products of the region.

THE LIGHT ZONES

A Zone is a belt passing around the earth. It is supposed to have a climate peculiar to itself and favorable to certain forms of life—animal and vegetable.

The Earth might be divided into zones according to:—

1. **The Elevation above the sea-level.**
2. **The Depression below the sea-level**—the ocean bed.
3. **The Classes of Vegetation found**—the Product Zones.
4. **The Distance from the Equator**—the Light Zones.
5. **The Mean Annual Temperature.**

In all of these, the mean annual temperature will be similar and will depend on the influence of the sun's rays.

The Earth is usually divided into five Light Zones:—

1. **The Torrid Zone**—the hot belt between the Tropics upon which the sun is shining vertically at all times of the year—where the temperature is high—the air humid—the vegetation rank—the region of spices, sugar, coffee, fine fruits and fine woods. Width: 47°.
2. **The North Frigid Zone**—that frozen region of the earth within the Arctic Circle where winter prevails all year—where there is little vegetation but mosses and lichens, and where the fur-bearing and oil-producing animals live. Width: 47°.
3. **The North Temperate Zone**—the belt between the Tropic of Cancer and the Arctic Circle—upon which the sun never shines vertically—where the climate is more moderate and more variable—where the products are more numerous—where the hardier fruits, grains and trees mature and the higher forms of intellectual man dwell. Width: 43°.
4. **The South Temperate Zone**—that belt between the Tropic of Cancer and the Antarctic Circle—similar to, but colder than the North Temperate Zone.
5. **The South Frigid Zone**—the region within the Antarctic Circle—still colder than the North Frigid Zone.

HEAT AND PRODUCT ZONES

The Northern Hemisphere has been divided into **seven zones** according to the characteristic vegetation of each. Plant life depends on a suitable soil, sufficient moisture and proper temperature; and the vegetation of a district will be a record of the "survival of the fittest" classes of plants that have congenial homes or that have adapted themselves to the existing conditions.

Isothermal lines are those passing through places having the same mean annual temperature, Isothermal lines, through places having the same mean Summer temperature, and **Isochimal lines,** through places having the same mean Winter temperature. At the Equator, there is little difference; but the farther north or south we go, the greater difference do we find.

Temperature	Am. Ek. Asia, N. Latitude	Characteristic Products of each Zone.
(1) 81°-78°	20° 20° 20°	Spices, Aromatic Plants.
(2) 78°-68°	31° 37° 31°	Sugar-cane, Coffee-tree.
(3) 68°-57°	36° 44° 40°	Olive and Fig—Cotton, Tobacco
(4) 57°-50°	43° 50° 50°	Wine-grape, Corn.
(5) 50°-41°	49° 63° 58°	Oak and Elm, Wheat, Apples.
(6) 41°-32°	54° 66°	Fir, Pine, Birch, Rye, Barley.
(7) 32°-		Shrubs, Lichens, Mosses.

Similar belts are to be found on the sides of a mountain from the sea level, where tropical vegetation flourishes, up past the temperate heats, where the hardier fruits and grains grow, past the timber line and the region of shrubs and mosses, to the region of eternal snow. This snow line varies in height according to latitude and other conditions.

There is also a difference in the plant and animal life **in the ocean** according to the depth below the surface. The greater the depth, the lower is the temperature, reaching almost to the freezing point of water.

THE FORMATION OF SOIL

The earth is supposed, at one time, to have been a molten mass which gradually cooled till a crust was formed, leaving the interior still molten. As the earth continued to cool, it contracted, and the hard surface became wrinkled like the skin of a cooled, baked apple. Thus was formed a surface of ridges and depressions; of mountain, hill, and valley, the lowest parts of which to-day form the bed of the ocean. From time to time, eruptions occurred and molten material, such as flows from volcanoes now-a-days, was thrown up, forming layer after layer of igneous matter which cooled into rock and added to the size of the mountains.

Since that time, **the work of erosion** has gone on. The rock has been broken off by the frost, softened, worn away, and crumbled by the water, or ground off by the glaciers, and changed to soil. The rain has washed it off and the streams have carried it down into the valleys, depositing it along their courses, or at their mouths.

Every part of the surface of the earth has been submerged, again and again, by the waters of the ocean. In the process of contracting, earthquake followed earthquake, and great regions were raised above the level of the sea, while others sank beneath its surface. How often this occurred, may be imagined when we know that in the formation of the coal-fields of Cape Breton the region was elevated and submerged some fifty-nine times, it is said.

In the successive changes of elevation, the different parts of the earth have at various times been submerged and the waves and the currents have arranged the soil in layers or strata, in banks, which, when again raised above the sea-level, have been exposed to the influence of wind and rain and river current and changed into hill and dale, flat and slope, such as we have to-day.

FERTILE SOIL AND DESERTS

Soil is the finely-divided rock-material which forms the greater part of the land surface. According to the size of the particles of which it is composed, the soil has been classified as clay, loam, sand and gravel.

Clay is composed of very fine particles of rock-material which adhere so closely that water has great difficulty in soaking through. When wet, it may be formed into various articles, which, when dried and burnt, retain their form. **Sand,** on the contrary, is composed of larger particles—in fact each grain is a little stone,—and these are held together so loosely that water sinks away as readily as through a sieve.

Soils have been divided into two classes—fertile and sterile—according as they are capable of supporting vegetable life or not. In some parts, clay or sand may be found alone; but the surface soil is a loam composed of sand and clay mixed with decaying vegetable and animal matter, which is called humus. Soils are light or heavy, according as the sand or clay predominates, and the ground is easy or difficult to cultivate. Fertile soil has the power to absorb and retain heat, moisture, gas and plant-food. If the soil is *too* clayey, it will be apt to be wet, if *too* sandy, it will be too dry.

In some regions, there are great sand plains which were once the beds of seas or of the ocean. These are low and therefore not cold enough to condense any moisture that might be in the passing air. Any rain that might fall upon them would at once sink away. They give off no moisture and receive none. They are exposed to heat by day and cold by night, as well as to parching sand-laden winds. These deserts have no vegetation except at certain spots where a spring furnishes nourishment to a few trees, and drink to the passing caravan.

COMMERCE AND TRANSPORTATION

Man is not satisfied with the bare necessaries which his own immediate neighborhood, and the present season, supply. He has become acquainted with the products of other lands and other climes; and through a long course of experiments he has succeeded in rising superior to the condition in which he found himself, and has made provision for exchanging those commodities which he can produce to advantage in his locality, for the desirable products of other parts of the world.

The old **methods of barter** have given place to the sale and purchase of modern times; and the local market has developed into the commercial metropolis where the products of the whole world are offered for sale. The price is regulated by the law of supply and demand, and is **paid in gold or silver or bills of exchange.** The rural population supply food and raw material to their urban brethren, and in return receive the skilled product of the manufacturing centres. All the world has become our province, and the races of mankind have become a commercial brotherhood, ministering, with profit, to the comforts and enjoyments of the human family.

Each part produces its **characteristic commodities** and provision is made to transport them to market. The long trip, on the ox-sled, or the lumber-wagon, to the distant market, is a thing of the past; every village is a collecting centre; every river is a highway to the sea. A thousand railways form a commercial network for collecting and distributing goods, and the trains seem to annihilate space. Every port is in communication with the rest of the world, and the little sailing vessels of former centuries, dependent upon wind and tide, have been superseded by the modern merchant vessels, independent of nature's aid, traversing the watery waste with a speed that is almost fabulous.

THE THREE KINGDOMS

All the material things in this earth are divided into three kingdoms—the Animal Kingdom, the Vegetable Kingdom, and the Mineral Kingdom. **The Animal Kingdom** includes all animals and everything of animal growth, or manufactured from animal substances. **The Vegetable Kingdom** includes all plants, and their tissues and products, and everything manufactured from these materials. **The Mineral Kingdom** includes all rocks, minerals, ores, or precious stones, or manufactures of these materials.

The Mineral Products of a region will depend on the nature of the rock in that region, and the enterprise of the inhabitants in developing these natural resources. The **Vegetable Products** of a region will depend upon the soil and climate, and the enterprise, skill, and industry of the inhabitants. **The Animals** to be found in a region will depend on the vegetation which supplies food suitable to the needs and tastes of these animals.

The Exports of a country are those articles of commerce which are sold to other lands; **the Imports** are those articles of commerce which are brought in from other lands. **The Products** are the marketed articles of the region, and **the Industries** are the occupations of the people.

The Natural Resources of a region may include many advantages supplied by nature—a favorable climate with abundance of heat and moisture—a fertile soil which will produce an abundant harvest and repay the toil of the husbandman—extensive forests which will affect the climate and supply material for building and manufacturing—rich mineral deposits which offer their wealth to the miner and the artisan—navigable rivers which furnish a highway for commerce—rapid streams and waterfalls which may be harnessed to produce electric light and heat and power; and with all of these Canada is richly endowed.

ANIMAL PRODUCTS OF COMMERCE

Domestic Animals—Wild Animals—Products

For Meats:—Cow, calf, sheep, lamb, goat, kid, pig.

Beasts of Burden:—Horse, mule, ass; ox, camel, llama; elephant, reindeer, dog.

Fowl:—Hens, turkeys; geese, ducks—eggs.

Pets:—Dogs, cats, guinea-pigs, rabbits, birds, etc.

Food:—Milk, cream, butter, cheese.

Meats:—Shipped on the hoof or dressed—beef, mutton, veal, pork, ham, bacon, fowl.

Fish:—Fresh, cured or canned—salmon, haddock, cod, herring, mackerel, etc.
Trout, white fish, bass, pike, etc.
Oysters, lobsters.

Oils:—Lard, tallow, sperm, seal, fish, cod liver oil.

Covering:—Fur, hair, bristles, down, feathers, quills, scales, shells.

Fibres:—Wool,—sheep, merino, alpaca (llama)—silk.

Hair:—Camel, goat, mohair, reindeer.

Feathers:—Ostrich, eiderdown, swansdown, plumage.

Skins:—Bear, deer, buffalo, fox, etc.

Fur:—Raw or in dressed and manufactured condition—beaver, otter, marten, fox, mink, ermine, lamb, seal.

Leathers:—Cowhide, horsehide, calf-skin, sheep-skin, buckskin, pigskin, goat skin, etc.
Kid, morocco, Russian leather, parchment, etc.
Aligator, snake, turtle, walrus, etc.

Insects:—Silk worm, cochineal, Spanish fly, locusts.

Birds:—Canaries and other birds that sing.
Parrots and other birds that speak.
Love birds and others for their beautiful plumage.

Various:—Whalebone, ivory, pearls, mother of pearl, coral, sponges.

VEGETABLE PRODUCTS OF COMMERCE

Cereals:—Wheat, rye, oats, barley, maze, rice, peas, beans;
Flour, meals, bread, pastry; flax (linseed oil).

Fruits:—Oranges, lemons, pineapples, bananas, guava;
Apples, pears, quinces;
Peaches, plums, aprictos, cherries; grapes;
Tomatoes, melons, squashes, pumpkins.
Figs, dates, prunes, raisins, currants, apricots.

Wines:—Grape, cherry, currant, cider, etc.

Roots:—Potatoes, turnips, carrots, beets, mangolds;
Yams, cassava; sugar.

Vegetables:—Onions, cabbage, lettuce, celery.

Spices:—Cloves, cinnamon, nutmeg, mace, pepper, ginger, allspice;
Coffee, tea, cocoa, vanilla.

Nuts:—Almond, walnut, pecan, hickory, filbert, hazel, Brazil, peanut, cocoanut, chestnut, cola.

Oils:—Olive, palm, linseed, castor; turpentine, resin.

Gums:—Arabic, rubber, gutta percha, eucalyptus.

Resins:—Resin, copal, camphor.

Timber:—Pine, fir, spruce, logs, timber, lumber, shingles;
—used for building purposes.
Maple, oak, elm, ash, birch, cherry, hickory, basswood
—used in the manufacture of furniture.

Fine Woods:—Mahogany, ebony, walnut, rosewood, olive wood, olive.

Fibres:—Cotton, linen (flax), hemp, cambric (ramie), Jute, manilla, tow, linden, kittuls.
—used in the manufacture of textiles.

Sugar:—Cane, beet, maple.

Prepared:—Sago, tapioca, macaroni.

Medicinal Plants:—Quinine, opium, cocaine, cola nut.

Dyes:—Logwood, indigo.

Various:—Cork, tobacco, vegetable ivory.

MINERAL PRODUCTS OF COMMERCE

Metals:—Obtained in veins of ore in mines.
Gold, silver, copper, nickel, platinum;
Iron, zinc, tin, lead, cobalt;

Manufactures:—Steel, wrought-iron, bronze, brass, type-metal.

Stone:—Obtained from quarries.
Granite, quartz, gneiss, flint, basalt, lava;
Building-stone—sandstone, limestone, granite, slate;
Lime, cement, plaster of Paris, alabaster,
Clay, slate, brick, tile, pottery, porcelain;
Grindstones, whetstones and oilstones.
Stone, boulders, macadam (broken stone);
Soil, clay, sand, loam, gravel, pebbles.

Coal:—Obtained in seams in the mines.
Anthracite, bituminous, lignite, albertite;
Cannal Coal (jet), peat.

Resins:—Obtained in "oil wells" or "pitch lakes."
Petroleum, maltha, asphalt, bitumen;
Kerosene, benzine, aniline, paraffin, napthaline, creosote, tar;
Oils, waxes, dyes, essences, perfumes, drugs;
Amber and copal.

Fibres, etc.:—Asbestos, serpentine, mica.

Jewels and Precious Stones:—Diamonds, rubies, emeralds, sapphires, amethysts, topazes, etc.;
Turquoises, opals, agates, moonstones, etc.

Chemicals and Drugs:—Salt, salts, saltpetre, etc.
Blue vitriol, copperas, arsenic, etc.
Sulphur, phosphorus.

MOUNTAIN FEATURES

The **Crust** of the earth is that part of it which has become cooled and hardened. In this process of cooling and contracting the surface has formed itself into mountains and valleys. The weather has gradually worn off these hills and the ground has been carried down into the valleys to form the plains. **Peculiar forms** in the surface have been named **physical features.**

A Mountain is an elevation of land over 2,000 feet above the surrounding country.

A Mountain Range or **Chain** is a line of mountains.

A Mountain System is two or more parallel ranges.

A Hill is an elevation, less than 2,000 feet in height.

A Hillock, Mound or **Knoll** is a small hill.

A Dune is a sand hill.

A Summit or **Peak** is the highest part of a mountain.

A Pinnacle is a high point of a rock.

The Slope is the mountain side.

The Base or **Foot** is the lowest part of a mountain.

A Cliff is a high steep rock.

A Precipice or **Escarpment** is a very steep slope bordering a plateau.

An Abyss is a very deep precipice.

A Crevice is a wide crack in a rock.

A Ledge is a shelf-like rock.

A Tunnel is an underground passage, as through a mountain or under a river.

A Plateau or **Tableland** is a tract of country over 1,000 feet above the sea level.

A Highland or **Highlands** is a mountainous district.

A Glacier is an immense mass of ice sliding slowly down a mountain side. It is formed of the snow that has accumulated for centuries on the mountain.

A Down is a hill of gently swelling land.

A **Moraine** is a line of rocks left by a glacier.
An **Avalanche** or **Snowslide** is a mass of snow sliding or rolling swiftly down a mountain side.
A **Valley** is a depression between hills or mountains.
A **Vale** or **Dale** is a small valley.
A **Dingle** is a shady valley.
A **Glen** is a narrow secluded valley.
A **Strath** is a valley of considerable size often containing a river. (Scotland).
A **Pass** is an opening, or passage, across a mountain chain.
A **Defile** is a long narrow pass.
A **Cave** is a natural cavity or hollow in rocks.
A **Cavern** is a large cave.
A **Grotto** is a small cave, natural or artificial.
A **Volcano** is a mountain emitting fire, ashes, or lava.
An **Active Volcano** is one in eruption all or part of the time.
An **Extinct Volcano** is one that has ceased to be active.
A **Crater** is the mouth of a volcano.
Lava is melted rock out of a volcano.
A **Plain** is a low tract of nearly level land.
Landes are sandy plains. (France).
Steppes are vast, rocky, salty, unwooded plains. (Russia)
Tundras are low, mossy plains. (Siberia).
Prairies are grassy plains, nearly treeless. (N. America).
Savannahs are treeless, meadow plains. (United States).
Llanos are grassy, treeless plains. (Venezuela).
Silvas or **Selvas** are densely wooded plains. (Brazil).
Pampas are grassy, treeless plains. (Argentine Republic).
Moors or **Heaths** are desolate plains. (Great Britain).
A **Swamp** is a low wet plain covered with trees.
A **Morass, Marsh, Bog** or **Fen** is a low wet spot covered with reeds or shrubs.
A **Desert** is a sandy or rocky waste.
An **Oasis** is a fertile spot in a desert.

DRAINAGE FEATURES

A Stream is of great importance. It drains away the excess of water and returns it to the sea. It bears moisture and fertility to dry regions. It is constantly changing the face of the country—wearing away the rock and soil which form its banks and carrying away the soil and depositing it along its course, or at its mouth. It is also a distributing agent, carrying seeds and plants from one part of its course to another.

It is a carrying agent for man, as in floating the lumberman's logs to market. If the stream is navigable, it forms a commercial waterway for transportation; and if the current is rapid, the water can be dammed and made to supply electricity for light, heat and power.

A Stream is flowing water.

A River is a large stream of fresh water flowing through or over the land. It is navigable if it is deep enough for the passage of large vessels. The water is rain or melted snow.

A Creek is a smaller stream than a river.

A Rill, Brook, Brooklet, Rivulet, or **Streamlet,** is a very small stream.

A Torrent is a violent mountain stream.

The Source, Spring or **Head** is the beginning of the stream.

The Course is the path of the stream.

The Bed is the land at the bottom of the stream.

The Surface is the top of the water.

The Channel is the deeper part of the stream.

The Current is the onward movement of the water, especially where swift.

The Bank is the rising ground on each side of the stream.

The Right Bank is the right side, as one goes down the stream.

The Left Bank is the left side, as one goes down the stream.

The Brink or **Margin** is the edge of the bank.

A Beach is a level, pebbly, or sandy bank.

A Levee is an artificial bank to prevent overflow of a river. (Mississippi).

A Crevasse is a break in a levee or a vertical cleft in a glacier.

The Mouth is where the stream empties into some other body of water.

An Estuary is the wide mouth of a river affected by tides.

A Delta is the land between the mouths of a river. These islands are of sediment brought down by the stream.

Sediment, or **Alluvial Deposit,** is the soil carried down by a river and deposited at its mouth, or along its course.

A Shoal is any shallow place in water.

A Sand Bar is a bank of sand, formed by the current, in the bed of a river.

A Ford is a place in a river where it may be crossed by wading.

A River Basin is the whole area drained by a river and its tributaries.

A River Valley is the depression through which a river runs.

A Watershed, Divide, or **Height of Land,** is a ridge that separates river basins.

A Bayou is one of the divisions of a river, at its mouth.

A Tributary or **Affluent,** is a stream flowing into a larger stream.

A Fork or **Confluent,** is one of two streams that unite to form a river. (North and South Saskatchewan).

A Confluence is the place where two streams unite.

A Pool is a small body of still water.

A Pond is a larger body than a pool.

A Dam is an embankment across a stream.

A Lake, Loch, or **Lough** is a large body of water surrounded by land.

A Lake Expansion is a part of a river that widens into a lake.

A Lagoon is a shallow lake in low-lying districts beside the sea. (Italy).

A Tarn is a small mountain lake.

A Waterfall is the water of a river falling over a steep rock.

A Cascade is a small waterfall.

The Cascades are a series of small waterfalls.

A Cataract is a very large waterfall.

A Rapid, or **Sault,** is the water of a river flowing rapidly over rocks.

An Eddy is any place where water whirls round.

A Whirlpool is an immense eddy.

A Ravine, or **Gorge,** is a deep, narrow hollow generally worn away by running water.

A Gully is a small gorge.

A Canon, or **Canyon,** is a very deep gorge where a river has worn a passage through the rock.

A Canal is an artificial waterway for irrigation or navigation.

A Canal Lock is an enclosure in a canal. It is fitted with gates at each end, and is used for raising or lowering boats from one level to another.

A Timber Slide is an artificial passage, constructed beside a waterfall, down which square timber is floated.

A Spring is water rising to the surface of the earth. It is fed by rain that has fallen on some higher level and worked its way through the earth, generally along a strata of gravel.

A Geyser is a hot spring which at certain intervals projects a stream of hot water into the air.

OCEAN FEATURES

The Ocean forms three-fourths of the surface of the earth. Though it separates the continents, it forms a connecting link between them, offering a highway to the commerce of the world and bearing on its bosom the product of every clime, to minister to the comfort of man in other lands.

Myriads of ships dot its surface visiting every country and calling at every port; while a network of submarine cables bears the messages of commerce everywhere. In a few days the ocean grey-hounds speed across this vast expanse of water, bearing their precious burdens of life and merchandise, and yet by means of wireless telegraphy holding constant communication with the shore and with other vessels out upon the deep.

Many provisions have been made by the Almighty to keep this great body of water from becoming a stagnant pool. Its woter is salty and is kept in constant motion. Twice a day the tide rises and falls with its mighty swell. The winds and storms, which at times seem to mock the seaman's skill, are unceasing; and the currents of the ocean carry on a constant interchange of water between the warm regions of the tropics and the cold waters of the poles. Then the sun, with his purifying influence, is constantly smiling upon its surface and bearing away moisture to supply rain to refresh the thirsty land, or to protect the earth with a mantle of snow.

Britain is the "Mistress of the Sea." Her vessels outnumber those of all other nations combined, and her navy rides on every sea, guarding the interests of the motherland and the sisterhood of nations which form the British Empire, the vastest in extent and greatest in commerce, wealth and population, of all the empires the world has known.

An Ocean is an immense body of salt water between continents.

A Sea is a smaller body of salt water than an ocean.

The Sea is the ocean (a general term).

A Gulf, or **Bay,** is a hollow, or bend, in the coast line. A gulf is deeper than a bay.

An Inlet is an opening in the coast.

A Bight is a wide inlet which does not extend far inland.

A Firth, or **Frith,** is a long narrow inlet at the mouth of a river. (Scotland).

A Fiord is a narrow inlet with high, rocky banks. (Norway).

A Strait is a narrow passage of water connecting two bodies of water, or separating two bodies of land.

A Gut is a narrow strait. (Nova Scotia).

A Channel is a wide strait.

A Sound is a shallow strait.

The Sea-bed is the bottom of the ocean.

The Sea-level is the level of the surface of the ocean. The height of a mountain and the depth of the sea is reckoned from the sea-level.

Tides are the regular rise and fall of the water of the ocean and its inlets caused by the attraction of the moon and the sun.—See page 18.

A Wave is a swell or ridge on the surface of the water.

A Billow is an immense wave.

Breakers are waves dashing against reefs, or the shore.

A Tidal-wave is the wave caused by the tide advancing on shore.

The Bore is the front of a tidal-wave, ascending a river.

An Earthquake-wave is an immense wave caused by an earthquake at the bottom of the sea.

An Ocean-current is the streamlike movement of water in the ocean. See page 19.

A Port is a calling place for ships—harbor and town.

A **Harbor** or **Haven** is a place of shelter for ships.

A **Breakwater** is a strong embankment to break the force of the waves and protect harbor or shore.

A **Road,** or **Roadstead,** is a good anchorage off the shore, a place for ships to anchor, but without harbor protection.

An **Isle,** or **Island,** is a piece of land surrounded by water

An **Islet** is a small island.

An **Archipelago** is a group of many islands.

An **Atoll** is a circular coral island surrounding a lagoon (Pacific Ocean.)

A **Bank** is a shallow place in the sea. (Newfoundland).

A **Coast,** or **Shore,** is the land bordering on the water.

The **Sea-board** is the sea-shore.

A **Shore-line** is the water-line along a shore.

A **Beach** is a sandy, or pebbly shore.

A **Bluff** is a high, steep bank, back from the shore.

A **Cliff** is a steep, rocky shore.

A **Reef** is a line of rocks just below the surface of the water. Many reefs are of coral formation.

A **Dyke** is an artificial bank along the coast. (Holland).

A **Cape** is a point of land jutting into the water. Local names: Head, Point, Ness, Naze, Mull, Bill, Butt.

A **Promontory** is a high rocky cape.

A **Peninsula** is a piece of land nearly surrounded by water.

An **Isthmus** is a narrow neck of land joining two larger portions of land.

An **Iceberg** is an immense mass of ice floating in the sea. It comes from the Polar regions and is carried by the polar currents to warmer regions, where it melts.

A **Lighthouse** is a tower, with a light, as a guide or warning to sailors. It is placed where there is danger to navigation.

A **Submarine Cable** is a telegraph line beneath the sea.

POLITICAL FEATURES

Man is the crowning act of the Creator's work. Endowed with higher faculties and greater possibilities than his fellow creatures, his progress has been greater. Experience has taught him that in unity there is strength, and instead of living the solitary life of a savage, depending on self alone for food, clothing, and protection, he has learned to dwell in communities—a Brotherhood of Men.

In these **communities,** each man devotes himself to some special occupation for which he is specially endowed. Instead of being a "Jack of all trades" he becomes a specialist and confines his energies to the preparing of some commodity which his district can produce to advantage, or to some occupation which will add to the welfare of his fellows, and he exchanges his products, or skill, with his fellow-man, in the markets of the world. In this way the products of the world are increased and the pleasures and comforts of mankind are multiplied.

In these communities, mutual obligations are accepted, and law and order prevail. The individual loses some of the **liberties of action** which belong to the savage life, and conforms to such customs as experience has shown to be for the common good. To secure concerted action, leaders are chosen and the rights of each member of the community are defined. **Laws** are enacted and officers are appointed to administer and enforce these laws, according to adopted plans.

An Industrial Centre is a community where one or more commodities are produced extensively. This will be the result of one or more local conditions. It may possess some natural resources, such as a forest or a mine, supplying material which may be manufactured. It may have a natural water-power or a coal field which would supply energy for manufacturing. It may have excellent means

of transportation, by rail or by water, to carry the raw material and the manufactured articles to and from the centre. It may be a distributing centre, having excellent means for receiving and distributing commodities. It may possess some enterprising individuals or firms, who, by skill and industry, have established a business which years have crowned with a world-wide reputation. Without such sons, the natural resources of a land are valueless.

These communities are named according to their size. **A City** is a community having a population of 9,000, and a council to manage its own affairs. **A Town** has over 2,000 people, and an **Incorporated Village,** over 800. A smaller community is called a **Village, or Hamlet.** This is for Ontario.

A Nation is a number of communities under one government; and the land in which they dwell is called **a Country.** According to the title and privileges of the chief magistrate, these countries are called **Empires, Kingdoms, Principalities, Dukedoms, Republics, Etc.**

A Monarchy is a country governed by a hereditary monarch. **An Absolute Monarchy** is one whose monarch has absolute power; **a Limited Monarchy** is one in which the power of the monarch is limited by law. **An Empire** is a union of nations for military purposes. In **A Republic** the chief magistrate is a president who is elected to office for a stated time. **A Commonwealth** is a country with a government similar to a republic. **A Colony** is a country settled by people from the mother-land and still under her rule.

For purposes of government, a country is divided into **States or Provinces,** and these into **Counties or Shires,** and these into **Townships** and **School Sections.** The seat of government of a county is called the **County-town;** that of a country, state or province is called **the Capital.**

THE WORLD

The Important Physical Features

1. Continents—in order of size:—Asia, Africa, North America, South America, Europe, Australia.

2. Oceans—in order of size:—Pacific, Atlantic, Indian, Arctic, Antarctic.

Countries and Capitals:—

All countries should be known, and those capitals that are important cities.

3. Seas:—Caribbean, Bering; Baltic, North, Irish; Mediterranean, Black, Caspian; Japan, Yellow, China, Red, Arabian; Coral.

4. Gulfs and Bays:—

Baffin, Hudson, James, St. Lawrence, Fundy, Mexico, California; Panama, Darien;
Bothnia, Finalnd, Biscay; Lyons, Genoa, Venice;
Pechele, Tonquin, Siam, Bengal, Persian;
Cabes, Sidra, Suez, Aden; Carpentaria, Australian.

5. Straits, Channels and Sounds:—

Davis, Hudson, Belle Isle, Cabot, Florida, Yucatan, Juan de Fuca; Magellan, Le Maire; Dover, English, St. George, North, Gibraltar, Dardanelles, Bosphorus; Bering, Korea, Malacca, Palks, Ormuz; Bab-el-Mandeb, Mozambique.

6. Islands:—To what country do they belong?

Greenland, Iceland, Newfoundland, Anticosti, Prince Edward, Cape Breton, Cuba, Hayti, Jamaica, Porto Rico; Vancouver, Queen Charlotte, Aleutian;
Trinidad, Falkland, Tierra del Fuego; Great Britain, Ireland, Corsica, Sardinia, Sicily, Malta, Cyprus.
Japan, Formosa, Hainan, Ceylon, Philippine;
Borneo, Sumatra, Java, Celebes, New Guinea;
Madagascar, St. Helena, Cape Verde, Canaries, Azores;
Australia, Tasmania, New Zealand.

7. PENINSULAS:—Labrador, Nova Scotia, Florida, Yucatan, Lower California, Alaska; Norway and Sweden (Scandinavia), Denmark (Jutland), Spain and Portugal (Iberia), Italy, Greece, Crimea; Arabia, India, Malay, Korea.

8. ISTHMUSES:—Darien or Panama, Chignecto; Kiel, Corinth, Perekop; Suez.

9. CAPES:—Farewell, Race, Sable, May, Canso, Hatteras, San Lucas, Flattery; Gallinas, St. Roque, Horn, Bianco; North, Naze, Wrath, Clear, Land's End, La Hague, Finisterre, Trafalgar, Spartivento, Passaro, Matapan; Lopatka, Cambodia, Negrais, Dondra; Good Hope.

10. MOUNTAINS:—Rocky, Alleghany, Laurentian; Andes, Brazilian; Alps, Carpathian, Balkan, Apennines, Pyrenees, Ural; Himalaya, Hindu, Kush, Thian, Shan, Altai, Elburz, Caucasus; Abyssinian, Drakenberg, Kong, Atlas.

11. RIVERS:—Mackenzie, Saskatchewan, St. Lawrence; Mississippi, Missouri, Ohio; Colorado, Columbia, Fraser, Yukon; Orinoco, Amazon, Rio de la Plata; Dwina, Vistula, Elbe, Rhine; Thames, Seine, Loire, Tagus, Rhone, Tiber, Danube, Dnieper, Don, Volga; Amoor, Yangtse-Kiang, Hoang-ho, Mekong, Ganges, Indus, Tigris, Euphrates; Nile, Zambesi, Orange, Congo, Niger; Murray, Darling.

NORTH AMERICA

1. POSITION:—

From 10° N. lat. to the North Pole.
The greater part is in the North Temperate Zone.
Between the Atlantic and the Pacific Oceans.
Compare the latitude with that of Europe and Asia.

2. BOUNDARIES:—

NORTH—Arctic Ocean.
EAST—Atlantic Ocean, Caribbean Sea.
WEST—Pacific Ocean, Bering Strait and Bering Sea.

3. SURFACE:—

1. THE GREAT WESTERN HIGHLANDS:—

The Cordillera System of mountains.

(1) THE ROCKY MOUNTAIN SYSTEM:—

RANGES:—Rocky, Sierra Madre.

PEAKS:—Columbia, Alberta, Hooker, Edith Cavell, Robson, Murchison; Freemont, Pike; Popocatepetl.

(2) THE COAST SYSTEM:—

RANGES:—Alaskan, Cascade, Selkirk, Sierra Nevada, Coast.

PEAKS:—Wrangel, Logan, St. Elias, Fairweather; Rainier, Hood, Shasta, Whitney.

2. THE GREAT EASTERN HIGHLANDS:—

The Secondary Highlands of the Continent.

(1) THE APPALACHIAN SYSTEM:—

RANGES:—Notre Dame, White, Green, Catskill, Alleghany.

(2) THE BASIN OF THE ST. LAWRENCE.

3. THE LAURENTIAN PLATEAU:—

The oldest rock Formation in the World.

RANGES:—Adirondacks, Wotchish—"The height of land."

4. THE GREAT CENTRAL PLAIN:—

(1) THE BASIN OF THE MACKENZIE.
(2) THE HUDSON BAY SLOPE OR BASIN.
(3) MISSISSIPPI BASIN AND SOUTHERN SLOPE.
(4) THE BASIN OF THE ST. LAWRENCE.

4. DRAINAGE:—

Many of these rivers and lakes are navigable for great distances, and play an important part in commerce and transportation. Others afford magnificent waterpowers to aid in manufacturing.

1. THE ARCTIC SLOPE:—

(a) THE BASIN OF THE MACKENZIE:—

RIVERS:—Slave, Mackenzie; Athabasca, Peace, Liard.

LAKES:—Great Bear, Great Slave, Athabasca, Wollaston.

(b) THE HUDSON BAY SLOPE OR BASIN:—

RIVERS:—Churchill, Nelson, Albany, East Main; Saskatchewan, Red, Assiniboine, Winnipeg.

LAKES:—Reindeer, Winnipeg, Woods.

2. THE ATLANTIC SLOPE:—

(a) INTO THE ATLANTIC:—

RIVERS:—Hamilton, St. Lawrence, St. John, Hudson, Delaware, Potomac, James, Savannah.

(b) THE BASIN OF THE ST. LAWRENCE:—

RIVERS:—St. Mary, St. Clair, Detroit, Niagara, St. Lawrence;
Ottawa, St. Maurice, Saguenay; Richelieu.

LAKES:—Superior, Michigan, Huron, St. Clair, Erie, Ontario;
Nipigon, Nipissing, Simcoe, St. John, Champlain.

3. THE SOUTHERN SLOPE:—

(a) INTO THE GULF OF MEXICO:—

RIVERS:—Mississippi, Brazos, Rio Grande.

(b) THE BASIN OF THE MISSISSIPPI:—

TRIBUTARIES:—Ohio—Cumberland, Tennessee.
Missouri—Yellowstone, Platte.
Arkansas—Canadian—Red.

4. THE PACIFIC SLOPE:—

RIVERS:—Colorado, Sacramento, Columbia, (Snake), Fraser, Yukon.

5. NATURAL RESOURCES

THE WESTERN PLATEAU is rich in gold, copper, silver, lead, while coal and iron of excellent quality are found in Alberta and British Columbia. The coast region has abundance of rain, and the northern part of the plateau is covered with dense forests of valuable timber. The rivers teem with fish, and the orchards and vinyards of California and British Columbia are world-famed.

In **The Eastern Plateau** coal and iron are found in abundance in the Appalachian Region.

The Laurentian Plateau is rich in gold, silver, nickel and copper, while forests of pine and spruce cover its rocky surface. The fishing grounds east of Canada are among the richest in the world.

The Great Central Plain is composed of rich soil. The centre is prairie, but the northern and southern parts are woodland. Many tropical products grow in the southern part of the continent, and the forests of the north abound in fur-bearing animals.

6. COAST FEATURES—WATER:—

(1) OCEANS:—**Arctic, Atlantic, Pacific.**

(2) SEAS:—**Caribbean, Bering.**

(3) GULFS AND BAYS:—**Boothia, Baffin, Hudson, James, Ungava; St. Lawrence, Fundy, Delaware, Chesapeake, Mexico, Campeachy, Honduras; California, San Francisco, Bristol, Norton.**

(4) STRAITS, CHANNELS AND SOUNDS:—**Davis, Hudson, Belle Isle, Cabot, Northumberland, Canso, Long Island, Florida, Yucatan; Golden Gate, Juan de Fuca, Georgia, Queen Charlotte, Behring.**

7. COAST FEATURES—LAND:—

(1) CAPES:—

These are important only in connection with navigation. The northern capes are unimportant.

Farewell, Cludley, Bald, Race, Canso, Sable, Cod, Hatteras, Sable, Catoche, Gracios a Dios; San Lucas, Mendocino, Blanco, Flattery, Scott.

(2) PENINSULAS:—**Boothia, Melville; Labrador, Avalon, Nova Scotia, Florida, Yucatan; Lower California, Alaska.**

(3) ISTHMUSES:—**Panama (Darien), Tehuantepec, Chignecto.**

(4) ISLANDS:—**Parry, Banks, Albert and Victoria, Prince of Wales, North Devon, Cockburn, Southampton, Baffin, Greenland, Iceland; Newfoundland, Anticosti, Prince Edward, Cape Breton, Long, Bermuda; Bahama, West Indies—Greater Antilles— Cuba, Hayti, Jamaica, Porto Rico; Lesser Antilles—Windward, Leeward; Vancouver, Queen Charlotte, Prince of Wales, Aleutian.**

8. POLITICAL DIVISIONS:—

COUNTRIES	CAPITALS	GOV'T	EXPORTS
Canada	Ottawa	Br.	See list p. 52.
Newfoundland and Labrador	St. John's	Br.	Fish, furs, iron ore.
Greenland	Godthaab	Den.	Whale-oil, whalebone, hides, eiderdown.
Iceland	Reikiavik	Den.	
United States and Alaska	Washington	Rep.	See list p. 52
Mexico	Mexico	Rep.	See list p. 52
Central America	Tegucigalpa		Coffee, india-rubber, cabinet-woods dye woods, medicinal plants; fruits
Br. Honduras	Belize	Br.	
Nicaragua	Managua	Rep.	
Costa Rica	San Jose	Rep.	
Panama	Panama	U.S.	
West Indies:—			
Cuba	Havana	Rep.	Sugar, molasses. rum, tobacco; cigars, coffee, fruits.
Hayti	Port au Prince	Rep.	
Dominica	San Domingo	Rep.	
Porto Rico	San Juan	U.S.	
Jamaica	Kingston	Br.	
Bahamas	Nassau	Br.	Fruit, turtles, salt.
Leewards	St. John	Br.	Sugar
Windwards	St. George	*	
Barbadoes	Bridgetown	*	
Bermudas	Hamilton	Br.	Vegetables.

* Several small islands belonging to Britain, France, United States, etc.

9. COMMERCIAL CENTRES:—

CANADA:—In order of size—1921 census—Montreal, Toronto, Winnipeg, Vancouver, Hamilton, Ottawa, Quebec Calgary, London, Edmonton, Halifax, St. John, Victoria, Windsor, Regina, Brantford, Saskatoon, Verdun, Hull, Sherbrooke, Sydney, Three Rivers, Kitchener, Kingston, Sault Ste. Marie, Peterborough, Fort William, St. Catharines, Moose Jaw, Guelph, Westmount, Moncton, Glace Bay, Stratford, St. Thomas, Lachine, Brandon, Port Arthur, Sarnia, Niagara Falls, New Westminster, Chatham, Outremont, Galt, St. Boniface, Charlottetown, Belleville, Owen Sound, Oshawa, Lethbridge, St. Hyacinthe, North Bay, Shawinigan Falls, Levis, Brockville.

UNITED STATES:—In order of size—1920 census—New York, Chicago, Philadelphia, Detroit, Cleveland, St. Louis, Boston, Baltimore, Pittsburg, Los Angeles, Buffalo, San Francisco, Milwaukee, Washington, Newark, Cincinnati, New Orleans, Minneapolis, Kansas City, Seattle, Indianapolis, Jersey City, Rochester, Portland, Denver, Toledo, Providence, Colombus, Louisville, St. Paul, Oakland, Akron, Atlanta; Omaha, Worcester, Birmingham, Syracuse, Richmond, New Haven, Memphis, San Antonio, Dallas, Dayton, Bridgeport, Houston, Hartford, Scranton, Grand Rapids, Paterson.

10. INDUSTRIES:—

CANADA:—Agriculture, grain-raising, dairying, stock-raising, fruit-growing;
—Fishing, canning, fur-trading;
—Mining, lumbering, ship-building;
—Manufacturing, commerce, transportation.

UNITED STATES:—Agriculture, grain-raising, fruit-growing, stock-raising, tobacco and cotton growing;
—Mining, lumbering, manufacturing;
—Fishing, canning, meat-packing;
—Commerce and transportation.

MEXICO:—Agriculture, mining, coffee, sugar.

CENTRAL AMERICA:—Lumbering, coffee-growing.

WEST INDIES:— Raising sugar, fruit, tobacco, coffee.

11. EXPORTS AND IMPORTS:—

COUNTRY	EXPORTS	IMPORTS
Canada	Grain, live stock, cheese, lumber, fruit, metals, coal, fish, meat, furs.	Manufactures, coal, cotton, india-rubber, tobacco, sugar, tea, coffee, spices, fruits.
United States	Grain, live stock, cotton, tobacco, oysters, fruit, coal, manufactures.	Manufactures, barley, india-rubber, fish, sugar, tea, coffee, spices.
Mexico	Silver, quicksilver, hides, sisal hemp, sugar, coffee.	Manufactures, fish, oils.
West Indies	Sugar, molasses, rum, tobacco, cigars, fruit, coffee.	Flour, meats, fish, manufactures.
Newfoundland	Fish, furs, minerals.	Wheat, flour, meats, coal, manufactures.

COMMERCIAL ROUTES

1. Continental Waterways

The St. Lawrence System.
The Mississippi System.

2. Continental Railways—Canadian

1. Canadian National Railway System.
   The Lines in United States are still called the "G.T.R"
   (a) National Transcontinental—Halifax to Prince Rupert.
   (b) Canadian Northern—Quebec to Vancouver.
2. Canadian Pacific Railway System.
   Vancouver to St. John (Halifax).

3. Transcontinental Railways—American

There are no American Railways that cross the continent like ours; but the Union Pacific, the Northern Pacific, the Southern Pacific, the Great Northern, the Lehigh Valley, the Pennsylvania, and other systems, serve large districts and have many branches.

4. Trans-Atlantic Steamship Lines

There are many steamship lines each having many vessels running regularly between the Canadian and the American seaports, and the seaports of Europe and Southern America. Among these are:—

The Canadian Pacific Ocean Services.
The Anchor-Donaldson Line.
The White Star Line.
The Red Star Line.
The Cunard Line.
The American Steamship Line, etc.

5. Trans-Pacific Steamship Lines.

Many Canadian and American Steamship Lines sail regularly to Asiatic, Hawaiian and Australian ports, and to Europe by way of the Panama Canal, as well as between Atlantic and Pacific seaports.

6. Canadian Seaports

EASTERN:—Montreal, Quebec, Halifax, St. John—trading with United States, Britain, Newfoundland, West Indies.

WESTERN:—Vancouver, Victoria, Prince Rupert—trading with United States, Japan, China and Australia.

7. American Seaports

EASTERN:—New York, Boston, Philadelphia, Baltimore, New Orleans—trading with other American Ports, Europe, West Indies, South America, Canada.

WESTERN:—San Francisco, Seattle, Portland—trading with Europe, Canada, Alaska, South America, Sandwich Islands, Japan, China, Australia.

CANADA

1. BOUNDARIES

North: Arctic Ocean.

East: Baffin, Davis, Atlantic.

South: Passamaquoddy, St. Croix, Maine, New Hampshire, 45th Parallel, St. Lawrence, Ontario, Niagara, Erie, Detroit, Lake and River St. Clair, Huron, St. Mary, Superior, Pigeon, Rainy Lake and River, Lake of the Woods, 49th Parallel, Haro, Juan de Fuca.

West: Pacific, Dixon Entrance, Alaska.

The States along the Canadian Boundary Line:
Maine, New Hampshire, Vermont, New York, Penn, sylvania, Ohio, Michigan, Minnesota, North Dakota-Montana, Idaho, Washington.

2. PROVINCES

Name	Ent.	Area	Pop.	Sen.	M.P.	Capitals
British Columbia	1871	357	524	*6	17	Victoria
Alberta	1905	253	588	6	16	Edmonton
Saskatchewan	1905	250	757	6	21	Regina
Manitoba	1870	251	610	6	17	Winnipeg
Ontario	1867	407	2933	24	82	Toronto
Quebec	1867	706	2361	24	65	Quebec
New Brunswick	1867	28	387	10	10	Fredericton
Nova Scotia	1867	21	523	10	13	Halifax
Pr. Edward Id.	1873	2	88	4	4	Charlottetown

* Proposed in 1914. Defeated in the Senate.
Yukon Territory sends one representative to the Commons.
Note—Quebec has 65 representatives in the House of Commons. The other provinces have a proportional number, according to population The Census of 1921 is shown here.

A **Province** has self-government within the limits laid down by the B. N. A. (1867).

A **District** is a large section of unorganized, sparsely settled country, not of sufficient importance for a separate government. Districts may be united to form a territory.

"THE NORTH WEST TERRITORIES"

A Territory is a division of the country governed by a Commissioner, or Lieutenant-Governor, and a Council to which members may be elected or may be appointed by the Dominion Government.

At first the **North West Territories** included the great extent of territory purchased from the Hudson Bay Company in 1869. From time to time parts of this have been formed into provinces, and at present the term includes **all of Canada north of the 60th Parallel,** which includes **Yukon, Mackenzie, Keewatin, Franklin.**

Sparsely settled, we have little conception of their great natural resources, but from time to time exploring and surveying parties have fallen upon mineral deposits of untold value. So far as we know, the wealth of these regions consists of (1) the **animals,** which include **beaver, otter, bear, moose, reindeer, musk ox, seal, whale** and **fish;** and (2) the **minerals,** which include **gold, silver, copper, iron, plumbago, mica, coal** and **petroleum.**

SUMMARY OF CANADIAN INDUSTRIES:—

B. C.—Mining, lumbering, fishing, canning, fur-trading, agriculture.

Alta.—Mining, ranching, farming.

Sask.—Farming (grain and stock).

Man.—Farming (grain and stock), lumbering.

Ont.—Farming (grain, stock, fruit, dairying), canning, meat-packing, manufacturing, lumbering, mining, fishing, ship-building, shipping.

Que.—Lumbering, fishing, manufacturing (woollens, cottons, etc.), mining, farming, dairying, shipping.

N. B.—Lumbering, fishing, manufacturing, ship-building, farming, mining, shipping.

N. S.—Mining, fishing, farming, shipping, manufacturing.

P. E. I.—Farming, fishing, manufacturing.

3. THE CLIMATE

The climate of **Southern British Columbia** is very mild. The prevailing wind is from the west; and as it passes over the Japan current which flows southward along the coast it is laden with moisture which passes up the mountain side and falls as rain. The mountains to the west and north protect the province from cold north winds.

The climate of **Central and Southern Alberta** is very mild. The cattle remain in the open all winter. At certain seasons, the warm, dry, Chinook winds prevail, before which snow disappears. The climate of the Peace River District is similar to that of Ontario though so far north.

Manitoba and Saskatchewan are far inland and there is comparatively little forest. The climate is therefore subject to greater variation between summer and winter and day and night. In winter, north winds prevail, and at times blizzards occur; but the summer is hot, and though frosts occur in early autumn, the finest wheat in the world is produced.

Ontario has a variable climate. It has no mountains to screen it, and is subject to south-east influences from the Atlantic, south-west influences from the western plains and the Gulf of Mexico, and north-east and north-west influences from the cold regions of the Arctic. This makes the climate variable and subject to sudden changes. The winter is moderately long and the summer quite warm. The rain-fall and snow-fall is abundant, and makes the land very productive.

The Climate of Quebec is similar to that of Ontario. Nearer to the sea, the rain-fall is more abundant. Farther north, the winters are longer and colder, and the summers shorter and hotter, but mature vegetation of all kinds and produce a forest of inexhaustible extent.

The Maritime Provinces are so near the ocean that the climate is milder than that of Ontario. In spring, dense fogs prevail—the cold Polar Current here meets the Gulf Stream and produces fogs that render navigation very dangerous. The rain and snow fall is heavy.

4. CHIEF INDUSTRIES OF CANADA

1. **Farming:** Grain:—Sask., Man., Alta., Ont.
   Live Stock:—Ont., Que., Man., Alta.
   Fruit:—Ont., N.S., B.C., N.B.
2. **Lumbering:**
   Lumber, timber, shingles:—Ont., Que., N.B., B.C.
   Pulpwood and Paper:—Ont., Que., N.B.
3. **Fruit Growing:** Apples:—Ont., N.S., B.C., P.E.I.
   Peaches:—Ont., B.C.
   Grapes:—Ont., B.C.
4. **Manufacturing:** Butter, Cheese:—Ont., Que.,Mar.Prov.
   Salt:—Ont., N.S., Alta.
   Petroleum:—Ont., Alta., N.B.
   Ships:—Ont., N.S., N.B., Que., P.E.I.
   Textiles:—Woollens:— Ont., Que.; Flour, Ont., Que., Man.;
   Agricultural Implements:—Ont., Que.
   Sugar.—Que., N.B.; Leather, Shoes:—Que., Ont.
5. **Fishing:** Whitefish, trout, etc.—The Great Lakes.
   Cod, haddock, mackerel, herring, lobsters, Oysters—Atlantic Coast.
   Salmon, halibut—Pacific Coast, B.C.
6. **Mining:** Value in millions (1920)—
   Coal:—(77) Alta., N.S., B.C., Sask., N.B.
   Nickel:—(24) Ont. (Sudbury), Man.
   Gold:—(15) Ont., B.C., Yukon, N.S., Que.
   Copper:—(14) B.C., Ont., Que., Yukon.
   Asbestos:—(13) Que., Ont.
   Silver:—(12) Ont. (Cobalt), B.C.
7. **Canning:** Fruit:—Ont., N.S., B.C.; Vegetables:—Ont.
   Salmon:—B.C.; Lobsters:—Maritime Provinces; Meats:—Ont., Que., Alta.
8. **Pork Packing:** Bacon, Ham:—Ont.
9. **Fur Trade:**—The Northern Region.

CANADA'S TRADE RELATIONS

In Millions of Dollars.

	Imports		Exports	
	1921	1922	1921	1922
Great Britain	528	417	314	300
United States	1416	820	560	304
Australia	*	1	18	10
British Africa	*	*	15	4
British East Indies	14	8	6	2
British Guiana	9	6	3	2
British West Indies	14	8	14	10
Newfoundland	2	1	16	9
New Zealand	4	1	11	4
Argentine	2	2	8	3
Belgium	4	3	40	12
Brazil	1	2	2	2
China	1	1	4	1
Cuba and Porto Rico	30	13	7	5
Scandinavia (3)	1	*	11	7
France	19	13	27	8
Italy	1	1	57	15
Japan	11	8	6	14
Mexico	2	3	1	1
Netherlands	4	4	20	9
Peru	4	6	*	*
Switzerland	14	8	1	*

Other countries in smaller amounts.

Does not include commodities for home consumption.
On what factors does trade between countries depend?
What factors (1) increase, (2) decrease the trade.
Account for the increases or decreases noted above.
* Less than a million dollars.

CANADA'S EXPORTS—BY COMMODITIES

In Millions of Dollars

This does not include the Home Consumption.

	1920	1021	1922
The Farm:—			
All Grains	220	344	213
Wheat	185	310	179
Barley	20	11	9
Oats	9	14	18
Sugar and Products	30	15	11
Food Products	378	454	300
Products (not food)	415	482	317
Animals (living)	50	25	11
Bacon and Ham	70	31	23
Milk and Products	56	52	36
Fruit	8	10	13
The Forest:—			
Wood and Products	213	284	179
Paper	63	92	69
Furs	19	4	4
The Mine:—			
Iron and Products	81	76	28
Other metals and products	54	45	27
Non-metallic Products	30	40	22
Coal	13	16	13
The Sea:—			
Fish	40	33	29
The Factory:—			
Flour	102	70	57
Meats	96	44	29
Textiles and Fabrics	34	18	4
Chemicals	22	20	9
Rubber Manufactures	10	10	4
Miscellaneous	71	32	14

The Canadian Fiscal Year ends on March 31st.

8. CANALS OF CANADA

CANALS	MILES	LOCATION	WHY BUILT
Sault Ste. Marie	1	Sault Ste. Marie	St. Mary Rapids
Welland	26	Pt. Colborne to Pt. Dalhousie	Niagara Falls
Murray	5	W.of B.of Quinte	Short Cut
St. Lawrence Canals—		Between Prescott and Montreal	
(1) Galops	7	Prescott	Galops Rapids
(2) Rapide Plat	4	Morrisburg	Plat Rapids
(3) Farran's Pt.	¾	Morrisburg	Farran's Pt.Rp's.
(4) Cornwall	11	Cornwall	Long Sault Rp's.
(5) Beauharnois	11	Valleyfield –	–Coteau, Cedars,
(6) Soulanges	14	Coteau –	–& Cascade Rp's.
(7) Lachine	8	Lachine to Montreal	Lachine Rapids
Ottawa Canals			
(1) Carillon	¾	Above Carillon	Carillon Rapids
(2) Grenville	5	Below Grenville	Long Sault Rp's.
(3) Culbute	300ft.	N. of Allumette	Waterfall
Rideau	126	Ottawa to Kingston	
(1) Tay	6	Perth to Lake Rideau	
Trent Valley	200	Via Trent River to Lake Simcoe and Georgian B.	Short Cut
Chambly	12	On Richelieu R.	

THE RAILWAYS OF CANADA

(Only the Important Ones Can be Given.)

1. The Canadian National Railways System:—
Over 22,000 miles of railway.
(a) Former Grand Trunk Railway System.
(b) Former Grand Trunk Pacific System.
Built by the Dominion Government.
(c) Former Canadian Northern Railway System.
(d) The Intercolonial Railway.
Stipulated for at Confederation—1867.

2. The Canadian Pacific Railway System.
Stipulated for when B.C. entered Confederation.
Over 14,000 miles of railway.

3. Temiskaming and Northern Ontario Railway:—North Bay, Cobalt, Haileybury, New Liskeard (Timmins and Iroquois Falls), Cochrane, and on to James Bay. (Now under construction).

4. Algoma Central and Hudson Bay Railway:—Sault Ste. Marie, Frater, Franz, Oba, Hearst.

5. Algoma Eastern Railway:—Sudbury, Espanola, Little Current (Manitoulin Island).

6. Michigan Central Railway:—Buffalo, Welland, Cayuga, Tillsonburg, St. Thomas, Essex, Windsor.

THE PRINCIPAL LINES AND STATIONS

(*Many of these were built as independent railways.*)

1. The Canadian National Railway System:—

MAIN LINE:— "Transcontinental" — "Grand Trunk Pacific"—Halifax, Truro, Moncton, Edmundston, Levis, Quebec, La Tuque, Cochrane, Hearst, Superior, Winnipeg, Portage la Prairie, Saskatoon, Edmonton, Yellowhead Pass, Prince George, Prince Rupert.

MAIN LINE:—"Grand Trunk"—Portland, St. Hyacinthe, Montreal, Cornwall, Brockville, Kingston, Belleville, Cobourg, Oshawa, Toronto, Hamilton, Brantford,

Woodstock, Ingersoll, London, Sarnia, Port Huron, Chicago.

SARNIA LINE:—Toronto, Brampton, Guelph, Kitchener, Stratford, St. Mary's, Sarnia, Chicago.

NORTH BAY LINE:—Toronto, Allandale, Orillia, Gravenhurst, North Bay.

MAIN LINE:—"Canadian Northern"—Montreal, Hawkesbury, Ottawa, Pembroke, North Bay, Sudbury, Oba, Port Arthur, Fort Frances, Rainy River, Winnipeg, Portage la Prairie, Dauphin, Canora, Warman, Battle ford, Edmonton, Kamloops, Port Mann, Vancouver.

ONTARIO LINE:—("C.N.R.")—Ottawa, Smith's Falls, Napanee, Belleville, Trenton, Cobourg, Port Hope, Toronto.

SUDBURY LINE:—Toronto, Beaverton, Bala, Parry Sound, Sudbury, Capreol.

CANADA ATLANTIC LINE:—St. Polycarpe, Ottawa, Arnprior, Renfrew, Algonquin Park, Depot Harbor.

MIDLAND LINE:—Belleville, Peterboro, Lindsay, Orillia, Midland.

BUFFALO-GODERICH LINE:—Buffalo, Fort Erie, Caledonia, Brantford, Paris, Stratford, Mitchell, Goderich.

PORT DOVER LINE:—Port Dover, Woodstock, Stratford, Listowel, Palmerston, Wiarton (Owen Sound).

LAKE ERIE AND GEORGIAN BAY LINE:—Port Dover, Caledonia, Hamilton, Burlington, Georgetown, Beeton, Allandale, Collingwood, Meaford.

LONDON AND WINGHAM LINE:—London, Lucan, Clinton, Wingham.

SOUTHAMPTON LINE:—Brantford, Galt, Guelph, Palmerston, Walkerton, Southampton.

KINCARDINE LINE:—Durham, Palmerston, Kincardine.

ELMIRA LINE:—Brantford, Galt, Kitchener, Waterloo, Elmira

INTERCOLONIAL LINE:—Montreal, St. Hyacinthe, Levis, R. du Loup, Rimouski, Newcastle, Moncton, Truro, Halifax

NIAGARA PENINSULA LINE:—Dalhousie, St. Catharines, Welland, Port Colborne.

TORONTO-COBOURG LINE:—Toronto, Port Hope, Cobourg.

TRENTON LINE:—Trenton, Bancroft and Howland.

WESTPORT LINE:—Brockville, Westport, Ottawa.

QUEBEC LINE:—Montreal, Joliette, Shawinigan, Quebec.

LAKE ST. JOHN LINE:—Murray Bay, Quebec, Chicoutimi.

SYDNEY LINE:—Truro, New Glasgow, Mulgrave Sydney

PORT ARTHUR LINE:—Port Arthur to Superior Junction

DULUTH LINE:—Fort Frances to Duluth.

PRINCE ALBERT LINE:—Winnipeg, Brandon, Regina Saskatoon, Warman, Prince Albert.

ATHABASKA LINE:—Winnipeg, Dauphin, Swan River, Hudson's Bay Jc., Prince Albert, North Battleford, Edmonton, Athabaska.

GREENWAY LINE:—Winnipeg, Greenway, Deloraine.

GOOSE LAKE LINE:—Saskatoon, Delisle, Rosetown, Drumheller, Calgary.

CALGARY LINE:—Tofield, Camrose, Mirror, Calgary.

VANCOUVER LINE:—Prince George to Vancouver.

2. Canadian Pacific Railway System:—

MAIN LINE:—(Halifax and Moncton)—St. John, Sherbrooke, Montreal, Ottawa, Arnprior, Pembroke, North Bay, Sudbury, Chapleau, Schreiber, Port Arthur, Fort William, Ignace, Kenora, Winnipeg, Portage la Prairie, Brandon, Regina, Moose Jaw, Swift Current, Medicine Hat, Calgary, Banff, Lake Louise, Glacier, Revelstoke, Golden, Kamloops, Vancouver, (Victoria).

WINDSOR LINE:—Montreal, Kemptville, Smith's Falls, Perth, Peterboro, Toronto, Galt, Woodstock, London, Chatham, Windsor, Detroit, Chicago.

YARMOUTH LINE:—Halifax, Windsor, Annapolis, Yarmouth.

NORTH SHORE LINE:—Montreal, Three Rivers, Quebec.

PRESCOTT LINE:—Prescott, Kemptville, Ottawa.

BELLEVILLE LINE:—(Toronto), Agincourt, Port Hope, Cobourg, Trenton, Belleville, Glen Tay.

(*The double tracking takes this route.*)

COLDWATER LINE:—Bethany, Lindsay, Orillia, Port McNicoll.

(*Connects with line of C.P.R. steamers for Upper Lakes.*)

OWEN SOUND LINE:—Toronto, Orangeville, Owen Sound.

TEESWATER LINE:—Orangeville, Mount Forest, Teeswater.

GODERICH LINE:—Guelph, Elmira, Millbank, Goderich.

SOO LINE:—Sudbury, Sault Ste. Marie, St. Paul, Minneapolis, Glenwood, Portal, Weyburn, Moose Jaw.

SOUTH SHORE LINE:—Sault Ste. Marie, Superior, Duluth, Glenwood, Emerson, Winnipeg.

EDMONTON LINE:—Winnipeg, Minnedosa, Saskatoon, Macklin, Wetaskiwin, Edmonton.

SOURIS LINE:—Winnipeg, Souris, Stroughton, Regina, Weyburn, Assiniboia, Lethbridge.

KIRKELLA LINE:—Kirkella, Bulyea, Lanigan.

KERROBERT LINE:—Moose Jaw, Rosetown, Kerrobert, Macklin (Edmonton).

MCLEOD-EDMONTON LINE:—McLeod, Calgary, Red Deer, Wetaskiwin, Edmonton.

CROW'S NEST LINE:—Medicine Hat, Lethbridge, McLeod, Kootenay, Nelson, Rossland.

ONTARIO

1. BOUNDARIES:—

EAST:—Quebec, Ottawa.

SOUTH:—St. Lawrence, Ontario, Niagara, Erie, Detroit, Lake St. Clair, River St. Clair, Huron, St. Mary, Superior, Pigeon, Rainy, and Lake of the Woods.

WEST:—Manitoba.

NORTH:—Manitoba, Hudson, James.

2. SURFACE:—

The land in the western peninsula is undulating and fertile, as is also the "Clay Belt." Much of the province belongs to the Laurentian region and is very rocky. It is studded with innumerable lakes, and the rivers are broken by numerous rapids and waterfalls, unfit for navigation, but valuable as waterpowers. This region is rich in minerals of various kinds, and the country is covered with forests of pine and spruce and other woods. It is a veritable sportsman's paradise for fish and game.

3. RIVERS:—

BOUNDARY RIVERS:—Ottawa, St. Lawrence, Niagara, Detroit, St. Clair, St. Mary, Pigeon, Rainy.

INLAND RIVERS:—Nipigon; French, Maganetawan, Muskoka, Severn, Nottawasaga; Saugeen, Maitland, Ausable; Thames, Sydenham; Grand; Welland; Credit, Humber, Don; Trent, Otonabee, Scugog; Mattawa, Petawawa, Bonnechere, Madawaska, Mississippi, Rideau, Nation; Albany, Moose, Abitibi.

4. LAKES:—

BOUNDARY LAKES:—Abitibi, Temiscaming, St. Francis, Lake of the Thousand Ids., Ontario, Erie, St. Clair, Huron, Superior, Rainy, Woods.

INLAND LAKES:—Nipigon, Nipissing; Muskoka, Rosseau and Joseph; Simcoe and Couchiching; Rice, Sturgeon, Balsam, and Scugog; Rideau; Mississippi.

5. BAYS:—

Thunder, Nipigon, Michipicoten; Georgian, Parry Sound, Matchedash, Nottawasaga, Owen Sound, Colpoy's; Rondeau Har., Long Point; Burlington, Toronto, Quinte; Hudson, James.

6. CHANNEL:—North

7. CAPES:—

Hurd; Pelee, Long Point, Aux Pins; Peter, Traverse.

8. PENINSULAS:—

Bruce, Essex (Detroit), Niagara, Prince Edward, and "The Western Peninsula."

9. ISLANDS:—

Silver, Pie, Michipicoten, (Royale); Manitoulin, Cockburn, St. Joseph, (Drummond); Parry, Christian; Pelee, Long Point; (Grand, Navy, Goat—to U.S.); Toronto, Amherst; Wolfe, Howe, Thousand Islands; (Allumette and Calumet)—to Quebec.

10. CITIES IN ONTARIO

(*Arranged Alphabetically. Pop. in 1,000's—1921.*)

Belleville:—(12); on Bay of Quinte; educational centre; dairy produce market; manufacturing.

Brantford:—(29); industrial and railway centre; stoves, ploughs, machinery, etc.

Chatham:—(13); agricultural district; manufacturing and railway centre; at head of navigation of Thames.

Fort William:—(25); fine harbor, lake port, large elevators, grain-shipping, milling, lumbering, paper.

Galt:—(13), industrial centre, manufactures of iron, etc.

Guelph:—(18), manufacturing; educational, farming centre; Ontario Agricultural College, technical high school, sanitarium.

Hamilton:—(114); industrial centre; excellent transportation, electric power, beautiful situation; mountain view of "Garden of Canada."

Kingston:—(21); Fort Cataraqui of French regime; lake, river and canal port; trans-shipment point; manufacturing and educational centre; penitentiary.

Kitchener:—(21), manufacturing and railway centre; public utilities; Niagara hydro-power.

London:—(60); railway, manufacturing, educational and agricultural centre.

Niagara Falls:—(14), local scenery, railway and manufacturing centre; generating and transmitting hydro power; American and Canadian port of entry; tourist's Mecca.

Ottawa:—(107); "The Beautiful" for situation; federal capital; parliament buildings; railway, manufacturing and educational centre; largest lumber factory in the Empire; electric power.

Owen Sound:—(12); lake port; fine harbor; railway terminus; manufactures.

Peterboro:—(20); electric city; on Trent Canal; great lift-lock; industrial centre.

Port Arthur:—(14); lake port; elevators; grain transshipping; summer traffic; ship-building; lumber, paper, iron.

St. Catharines:—(19); centre of "Garden of Canada"; fruit growing, shipping and canning; railway centre; paper mills.

St. Thomas:—(16); Railway; manufacturing and industrial centre; railway divisional point.

Sarnia:—(14); railway and lake traffic; tunnel; oil-refining; industrial centre.

Sault Ste. Marie:—(21); on canal between upper and lower lakes; hydro-power; industrial centre; steel plant, paper mills; game and fishing.

Stratford:—(16); divisional point and railway centre, industrial, educational, agricultural centre; furniture.

Toronto:—(521); Provincial capital; government and municipal buildings; educational, commercial, financial, publishing, industrial and railway centre; city of homes, schools, churches, hospitals and libraries; fine port and harbor; Canadian National Exhibition; wholesale trade; public utilities.

Windsor:—(38); River and lake port; industrial, fruit and tobacco centre; American capital.

Woodstock:—(9); Agricultural centre; dairy products; educational and industrial centre.

Welland:—(8); Canal port; railway and industrial centre.

Brockville:—(9); Lake port; Prov. School for the Deaf.

Oshawa:—(11); Large manufactories; baby city.

II. COUNTIES AND COUNTY TOWNS:—

On Georgian Bay and Lake Huron.

Counties	Towns—County Towns First
Simcoe	Barrie, Orillia, Collingwood, Midland
Grey	Owen Sound
Bruce	Walkerton, Kincardine
Huron	Goderich, Seaforth
Lambton	Sarnia, Point Edward, Petrolia

On Lake Erie

Essex	Sandwich, Windsor, Walkerville, Ford
Kent	Chatham
Elgin	St. Thomas
Norfolk	Simcoe
Haldimand	Cayuga
Welland	Welland, Niagara Falls

On Lake Ontario and Bay of Quinte

Lincoln	St. Catharines
Wentworth	Hamilton, Dundas
Halton	Milton, Georgetown, Oakville
Peel	Brampton

York	Toronto, Newmarket, Aurora
Ontario	Whitby, Oshawa
Durham and Northumberland	Cobourg, Port Hope
Prince Edward	Picton
Hastings	Belleville, Trenton
Lennox and Addington	Napanee
	ON RIVER ST. LAWRENCE
Frontenac	Kingston
Leeds and Grenville	Brockville, Prescott, Kemptville
Dundas, Stormont and Glengarry	Cornwall, Morrisburg
	ON OTTAWA RIVER
Prescott and Russell	L'Original, Hawkesbury
Carleton	Ottawa, Eastview
Renfrew	Pembroke, Renfrew
	WESTERN INLAND COUNTIES
Middlesex	London, Strathroy, Parkhill
Oxford	Woodstock, Ingersoll
Brant	Brantford
Perth	Stratford, St. Marys, Mitchell, Listowel
Waterloo	Kitchener, Galt, Waterloo, Preston
Wellington	Guelph, Elora
Dufferin	Orangeville
	EASTERN INLAND COUNTIES
Victoria	Lindsay
Peterborough	Peterboro
Haliburton	Minden
Lanark	Perth, Almonte, Smith's Falls

DISTRICTS AND CAPITALS

Muskoka	Bracebridge
Parry Sound	Parry Sound
Nipissing	North Bay
Algoma	Sault Ste. Marie
Thunder Bay	Port Arthur, Fort William
Rainy River	Fort Frances
Manitoulin	Manitowaning
Timiskaming	Haileybury
Sudbury	Sudbury
Kenora	Kenora
Cochrane	Cochrane

12. PORTS:—

ON SUPERIOR:—Port Arthur, Fort William; (Duluth, Skperior).

ON ST. MARY:—Sault Ste. Marie; (Sakit Ste. Marie).

ON MICHIGAN:—(Am.) Chicago, Milwaukee.

ON LAKE HURON AND GEORGIAN BAY:—Parry Sound, Port McNicoll, Midland, Collingwood, Owen Sound, Wiarton; (Saginaw, Bay City, Alpena).

ON ST. CLAIR:—Point Edward, Sarnia; (Port Huron).

ON DETROIT:—Windsor, Sandwich, Walkerville; (Detroit)

ON ERIE:—Rondeau, Port Stanley, Port Dover, Port Colborne; (Toledo, Sanduskey, Cleveland, Erie, Buffalo).

ON ONTARIO:—Niagara Port Dalhousie, Hamilton, Oakville, Port Credit, Toronto, Whitby, Oshawa, Bowmanville, Port Hope, Cobourg, Kingston; (Charlotte, Rochester, Oswego).

ON QUINTE:—Picton, Trenton, Belleville, Napanee.

ON ST. LAWRENCE:—Gananoque, Brockville, Prescott, Cornwall; Montreal, Que., Quebec, Que.; (Morristown, Ogdensburg).

ON OTTAWA:—Hawkesbury, L'Original, Ottawa, Arnprior, Pembroke; (Hull, Que.).

BRITISH COLUMBIA

1. BOUNDARIES—NORTH:—Yukon, Mackenzie.
   EAST:—Alberta—120th Meridian, Rocky Mountains.
   SOUTH:—United States, Haro Strait, Juan de Fuca.
   WEST:—Pacific, Dixon Entrance, Alaska.
2. SURFACE AND NATURAL RESOURCES:—The country is mountainous, and the scenery is grand beyond description. The minerals, including gold, copper, silver, coal, iron, are of untold value. The coast is bold and rocky, and has many little inlets which form valuable harbors. The rivers swarm with salmon. Fertile valleys extend along the rivers and near the coast. Dense forests of valuable trees cover a large part of the province, and numberless animals roam in the woods.
3. MOUNTAINS—RANGES:—Rocky, Selkirk, Cariboo, Coast, Cascade.
   PEAKS:—Hooker, Robson, Murchison, Edith Cavell, etc.
   PASSES:—Kootenay, Crow's Nest, Kicking Horse, Pine River, Yellowhead, and Peace River.
4. RIVERS:—Fraser, Thompson, Columbia, Kootenay, Skeena, Sticken, Liard, Peace.
5. LAKES:—Kootenay, Arrow, Okanagan.
6. GULFS AND BAYS:—Bute, Burrard, Portland Canal.
7. STRAITS:—Juan de Fuca, Georgia, Queen Charlotte Sd., Dixon Entrance.
8. CAPES:—Scott, St. James, Knox.
9. ISLANDS:—Vancouver, Queen Charlotte, Texada.
10. CITIES AND CHIEF TOWNS:—Victoria, Vancouver, New Westminster, Nanaimo, North Vancouver, Prince Rupert, Nelson, Kamloops, Fernie, Esquimalt.
11. INDUSTRIES:—Mining—gold, copper, silver, coal, iron; manufacturing, lumbering, paper-making; fishing, canning; farming, stock-raising, fruit-raising.

THE PRAIRIE PROVINCES

(MANITOBA, SASKATCHEWAN, ALBERTA)

1. BOUNDARIES:—NORTH:—60th Parallel of Latitude.
   EAST:—**Hudson, Ontario.**
   SOUTH:—49th Parallel of Latitude—U.S.
   WEST:—**British Columbia**—Rocky, 120th Meridian.
2. SURFACE:—North-east Manitoba is rocky and wooded. South-west of this the prairies extend for hundreds of miles—a succession of steps or plateau-terraces separated by two escarpments reaching to the foot-hills of the Rockies. The southern portion of these plains is largely treeless, but the northern parts are forested.
3. MOUNTAINS OR HILLS:—The Laurentian table land—the remains of the mighty mountain system of long ago—the rolling hills to the south-east and the Rockies to the west.
4. PASSES:—**Crow's Nest, Kicking Horse, Yellowhead, Peace River.**
5. PARKS:—**Banff, Jasper.**
6. LAKES:—**Athabaska, Wollaston, Deer, Winnipegosis, Manitoba, Winnipeg, Woods.**
7. RIVERS:—**Saskatchewan—North and South Forks; Red, Winnipeg, Assiniboine (Souris); Churchill, Nelson; Peace, Athabaska, Slave.**
8. CITIES AND CHIEF TOWNS:—**Winnipeg, Brandon, St. Boniface, Portage la Prairie, Transcona; Regina, Saskatoon, Moose Jaw, Prince Albert, Yorktown; Calgary, Edmonton, Lethbridge, Medicine Hat.**
9. INDUSTRIES:—Farming, grain-raising, grazing, lumbering, fishing, mining, manufacturing, fur-trading.
10. PRODUCTS:—Wheat, oats, barley, flax, potatoes; cattle; coal, gas, petroleum, bitumen; lumber, fish, furs.

QUEBEC

1. BOUNDARIES:—NORTH:—Hudson Strait.
   EAST:—Labrador, Gulf of St. Lawrence.
   SOUTH:—Chaleur, New Brunswick, United States.
   WEST:—Ottawa, Ontario, James, Hudson.
2. MOUNTAINS:—
   Laurentian Plateau, Appalachian System, Notre Dame
3. RIVERS:—The St. Lawrence River; Ottawa, St. Maurice, Saguenay; Richelieu, St. Francis; Coulonge, Gatineau, Livre, Rouge; Rupert, East Main.
4. LAKES:—St. Francis, St. Louis, St. Peter; Two Mountains; St. John, Mistassini; Champlain, Memphremagog, Megantic.
5. GULFS AND BAYS:—St. Lawrence, Chaleur, Hudson, James, Ungava.
6. STRAITS:—Hudson, Belle Isle.
7. CAPES:—Gaspe, Father Point.
8. PENINSULA:—Gaspe.
9. ISLANDS: Allumette, Calumet; Montreal, Jesus, Perrot; Orleans; Anticosti, Magdalen.
10. CITIES AND CHIEF TOWNS:—

Montreal—Largest city in Canada; railway centre and summer ocean port; manufacturing of all kinds.

Quebec:—Capital; ocean port, oldest city and strongest fortress in Canada; manufacturing; trade.

Verdun, Hull, Sherbrooke, Three Rivers, Westmount, Lachine, Outremont, St. Hyacinthe, Shawinigan, Levis, Valleyfield, Joliette, Chicoutimi, Sorel.

The many waterpowers make Quebec a natural m'f'g centre

11. INDUSTRIES:—Lumbering, fishing, farming, manufacturing; trade and commerce; fur-trade; shipbuilding; Mining—iron, mica, asbestos.

NEW BRUNSWICK

1. BOUNDARIES:—NORTH:—Quebec, Restigouche, Chaleur.
   EAST:—St. Lawrence, Northumberland.
   SOUTH:—Nova Scotia, Cumberland, Chignecto, Fundy.
   WEST:—Passamaquoddy, St. Crois, Maine, St. John.
2. RIVERS:—Restigouche, Miramichi; Petitcodiac, St. John, (Tobique, Salmon, Canaan), St. Croix.
3. LAKE:—Grand.
4. GULFS AND BAYS:—Chaleur; St. Lawrence, Miramichi, Verte; Fundy, Passamaquoddy, St. John Harbor, Chignecto, Shepody, Cumberland.
5. STRAIT:—Northumberland.
6. CAPES:—Miscou, Escuminac, Tormentine.
7. ISTHMUS:—Chignecto.
8. ISLANDS:—Miscou, Shippegan; Grand Manan, Campobello, Deer.
9. CITIES AND CHIEF TOWNS:—St. John, Moncton, Fredericton, Campbellton.
10. INDUSTRIES:—Lumbering, fishing, ship-building; Mining, farming, manufacturing.

NOVA SCOTIA

1 BOUNDARIES:—NORTH:—Northumberland Strait, Gulf of St. Lawrence.
   SOUTH-EAST:—Atlantic Ocean.
   WEST:—Fundy, Chignecto, Cumberland, New Brunswick.
2. MOUNTAINS:—Cobequid, North, South.
3. RIVERS:—All small. Annapolis; St. Mary, La Have, Liverpool.
4. LAKES:—Rossignol, Bras d'Or (C.B.)

5. Ocean:—Atlantic.

6. Gulfs and Bays:—St. Lawrence, Verte, St. George's; Chedabucto, Halifax Har., Bedford Basin, St. Margaret's, Mahone; Fundy, St. Mary's, Annapolis, Minas, Chignecto, Cumberland.

7. Straits:—Northumberland; Canso; Minas, Digby.

8. Capes:—St. George, North; Breton, Canso, Sambro, Sable; Split, Chignecto.

9. Isthmus:—Chignecto.

10. Islands:—Cape Breton, Madame, Pictou, Sable, Long.

11. Cities and Chief Towns:—Halifax, Sydney, Glace Bay, Amherst, New Glasgow, Sydney Mines.

12. Products:—Coal, iron, steel, gypsum, fish, fruit.

13. Industries:—Fishing, lumbering, ship-building; farming, manufacturing, mining, shipping.

PRINCE EDWARD ISLAND

1. Boundaries:—North and East:—Gulf of St. Lawrence.

South:—Northumberland Strait.

2. Gulfs and Bays:—St. Lawrence, Hillsborough, Egmont, Richmond, Cardigan.

3. Strait:—Northumberland.

4. Capes:—North, East, Bear, West.

5. Cities and Chief Towns:—Charlottetown:—Port; ship-building; trade in farm produce and oysters. Summerside, Georgetown.

6. Industries:—Farming, fishing, ship-building.

7. Products:—Wheat, oats, barley, potatoes, oysters, foxes.

UNITED STATES

CAPITAL: WASHINGTON, D.C.

(1) NEW ENGLAND STATES

STATES	AB.	CAPITALS	CHIEF PRODUCTS
Maine	Me.	Augusta	Lumber, fish, ships
New Hampshire	N.H.	Concord	Manufactures
Vermont	Vt.	Montpelier	Butter, cheese, marble
Massachusetts	Mass.	Boston	Manufactures:
Rhode Island	R.I.	Providence and Newport	Manufactures
Connecticut	Conn.	Hartford	Manufactures

(2) MIDDLE ATLANTIC STATES

New York	N.Y.	Albany	M'f's, grain, cheese, salt
New Jersey	N.J.	Trenton	Manufactures
Pennsylvania	Pa.	Harrisburg	Coal, iron, petroleum, m'f's.

(3) SOUTH ATLANTIC STATES

Delaware	Del.	Dover	Fruit
Maryland	Md.	Annapolis	Fruit, oysters, coal
Virginia	Va.	Richmond	Tobacco
West Virginia	W.Va.	Charlestown	Coal, iron, salt
North Carolina	N.C.	Raleigh	Lumber, turpentine, tar
South Carolina	S.C.	Columbia	Cotton, rice
Georgia	Ga.	Atlanta	Cotton, m'f's.
Florida	Fla.	Tallahassee	Cotton, fruit

(3) SOUTH CENTRAL STATES (EAST)

Kentucky	Ky.	Frankfort	Tobacco, horses
Tennessee	Tenn.	Nashville	Cotton, Tobacco, stock
Alabam	Ala.	Montgomery	Cotton
Mississippi	Miss.	Jackson	Cotton

	South Central States (West)		
Louisiana	La.	**Baton Rouge**	Cotton, sugar, rice
Arkansas	Ark.	**Little Rock**	Cotton
Oklahoma	Okla.	**Guthrie**	Cotton
Texas	Tex.	**Austin**	Cotton, cattle, grain
	(4) North Central States (East)		
Wisconsin	Wis.	**Madison**	Lumber, grain
Michigan	Mich.	**Lansing**	Lumber, salt, copper
Illinois	Ill.	**Springfield**	Grain, stock, m'f's
Indiana	Ind.	**Indianapolis**	Grain, stock, coal
Ohio	O.	**Columbus**	Coal, petroleum grain
	(3) Western Central States		
Minnesota	Minn.	**St. Paul**	Wheat, flour, lumber
Iowa	Ia.	**Des Moines**	Wheat, corn, stock
Missouri	Mo.	**Jefferson City**	Grain, iron, m'f's.
North Dakota	N. Dak.	**Bismarck**	Wheat
South Dakota	S. Dak.	**Pierre**	Wheat
Nebraska	Neb.	**Lincoln**	Wheat, corn, meats
Kansas	Kan.	**Topeka**	Wheat, corn, stock
Arkansas	Ark.	**Little Rock**	Cotton
	(6) Pacific States		
Washington	Wash.	**Olympia**	Lumber, fish, metals, fruit
Oregon	Ore.	**Salem**	Fish, wool, stock
California	Cal.	**Sacramento**	Fruit, grain, wine, gold

(5) MOUNTAIN STATES

Montana	Mont.	Helena	Gold, silver, cattle
Idaho	Ida.	Boise City	Gold, silver
Wyoming	Wyo.	Cheyenne	Gold, silver, cattle
Colorado	Colo.	Denver	Gold, silver
New Mexico Ter.	NewM.	Santa Fe	Gold, silver
Arizona	Ari.	Phoenix	Gold, silver
Utah		Salt Lake City	Lead.
Nevada	Nev.	Carson City	Silver, lead

NOTE—Alaska, Porto Rico, Hawaii, American Samoa, Guam, Panama Canal Zone, American Virgin Islands and the Philippines have been added to the United States.

THE CITIES OF UNITED STATES

New England States:—Boston, Providence, Worcester, New Haven, Bridgeport, Hartford.

Middle Atlantic States:—New York, Philadelphia, Pittsburgh, Buffalo, Newark, Jersey City, Rochester, Syracuse, Scranton, Paterson.

South Atlantic States:—Baltimore, Washington, Atlantic, Richmond.

North Central States (East):—Chicago, Detroit, Cleveland, Milwaukee, Cincinnati, Indianapolis, Toledo, Columbus, Akron, Dayton, Grand Rapids, Youngstown.

North Central States (West):—St. Louis, Minneapolis, Kansas City, St. Paul, Omaha.

South Central States (East):—Louisville, Birmingham, Memphis.

South Central States (West):—New Orleans, San Antonio, Dallas, Houston.

Mountain States:—Denver.

Pacific States:—Los Angeles, San Francisco, Seattle, Portland, Oakland.

INDUSTRIAL NOTES:—

The United States is really a community of nations, each under the incentive and control of the State but organized for co-operative action and mutual advantage by the Federal Government. It is perhaps the most independent country in the world. The vastness of her territory, the difference in her latitude and her altitude, the variety and richness of her mineral resources, her abundant rainfall, her fertile soil and favorable climate and her great population, all combine to make her one great industrial, commercial, financial hive, and her products include all the material things that heart could wish for.

With the exception, perhaps, of rubber, silk, nickel and spices, all kinds of raw material for the employment of her industrial millions are produced in abundance within her borders. The farm, the forest and the mine, as well as her coast and inland woters pour their riches into the factory storehouses. Her limitless fields of coal and her myriad hydro-plants furnish the power to turn her busy wheels of trade; and added to this, we have the marvelous system of transportation, by rail and water, linking up the cities, towns and villages in co-operative and competitive action, and providing for the free exchange of urban and rural commodities.

Such an inheritance from the Bountiful Father suggests peculiar responsibilities to the other members of the Great Brotherhood as well as real leadership among the nations of the world. Nations as well as individuals can lose their soul—have lost their soul—do lose their soul.

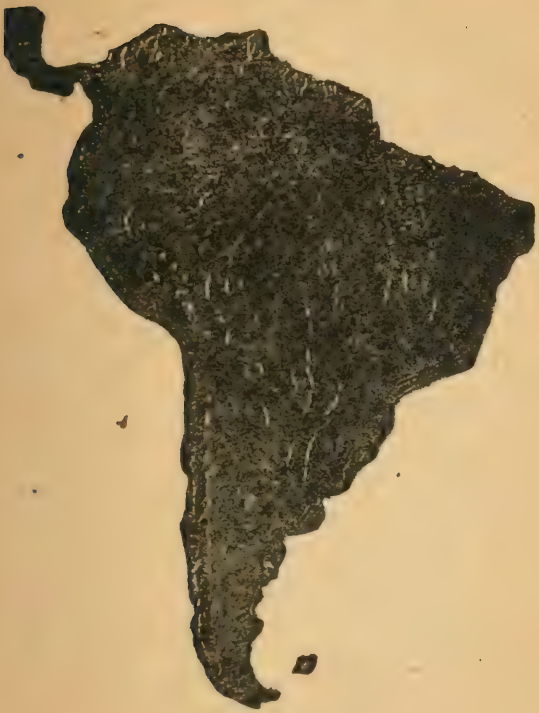
It is difficult to have any proper conception of the magnitude of the trade of this nation. The following table shows the industries which had a product of over a

billion dollars for the last census year (1919). They are arranged in order of importance and the values are given in billions of dollars.

1. Slaughtering and meat packing 4.2
2. Iron and steel products 2.8
3. Automobiles 2.3
4. Foundry and machine shop products 2.2
5. Cotton goods 2.1
6. Flour and grist-mill products 2.0
7. Petroleum refining 1.6
8. Ship building, steel 1.4
9. Lumber and timber products 1.3
10. Cars and repairs, etc 1.2
11. Women's clothing 1.2
12. Men's clothing 1.1
13. Boots and shoes 1.1
14. Bread and bakery products 1.1
15. Woollen and worsted goods 1.0

20 industries had a product of over $500,000,000 each.
46 industries had a product of over $100,000,000 each.

SOUTH AMERICA



1. POSITION:—

From 10° N. lat. to 55° S. lat.

The greater part lies in the Torrid Zone.

Compare the latitude with that of Africa and Australia.

2. BOUNDARIES:—

NORTH—Caribbean Sea.
EAST—Atlantic Ocean.
WEST—Pacific Ocean.

3. SURFACE AND DRAINAGE

THE GREAT WESTERN PLATEAU:—

The Andes System:—

RANGES—Three at north, two in centre, and one at south.
PEAKS—Antisana, Cotopaxi, Chimborazo, Sorata, Illimani, Aconcagua, Antuco, Yanteles.
RIVERS—Magdalena; the others are short and rapid.
LAKES—Maracaybo, Titicaca.

THE EASTERN HIGHLANDS:—

The Brazilian Plateau:—

RANGES—Espinhaco, Mantiqueira.
RIVER—San Francisco.

The Guiana Plateau:—

RANGES—Parima, Pacaraima, Tumachumac.
RIVER—Essequibo.

THE GREAT CENTRAL PLAIN:—

Northern Slope:—

RIVER—Orinoco.

The Basin of the Amazon:—

RIVERS—Amazon, Para;
(a) Japura, Negro.
(b) Yucayale, Madeira, Tapajos, Xingu, Tocantins.

Southern Slope:—

RIVERS—Rio de la Plata
Uruguay, Parana—Paraguay, Salado.

4. COAST FEATURES—WATERS:—

The coast line is almost unbroken.
(1) OCEANS:—Atlantic, Pacific.
(2) SEA:—Caribbean.

(3) GULFS AND BAYS:—

(a) **Darien, Venezuela, Paria.**

(b) **St. Mathias, St. George.**

(c) **Arica, Guayaquil, Panama.**

(4) STRAITS:—

Magellan, La Marie.

5. COAST FEATURES—LAND:—

These are few and small.

(1) CAPES:—

Gallinas, St. Roque, Frio, Horn, Blanco.

(2) ISTHMUS:—

Panama (Darien).

(3) ISLANDS:—

Leeward, Trinidad, Joannes (Marajo);
Tierra del Fuego, Staten, Falkland, South Georgia;
Wellington, Chiloe, Juan Fernandez, Chincha, Galapagos, (Colon Archipellago).

REMARKABLE FEATURES

South America, like the other southern continents, has a very simple mountain system, and the coast-line is almost unbroken. The two remarkable features of the continent are the Andes Mountains with their numerous volcanoes, and the Amazon River with its immense tide of water.

The Amazon is one of the greatest rivers of the world, both on account of its length and its volume of water, which indicates the abundance of the rainfall of the region. This depends on five conditions:—(1) the presence of the ocean; (2) the tropical situation; (3) the direction of the prevailing wind; (4) the presence of the mountains; (5) their great distance from the sea. The surface of the country is so level that the river has a fall of only a few feet in the last thousand miles of its course, and is navigable for thousands of miles.

6. POLITICAL DIVISIONS:—

COUNTRIES	GOV'T.	CAPITALS AND CHIEF CITIES
Brazil	Rep.	Rio Janeiro, Bahia, Pernambuco, Para, Sao Paulo
Argentine Rep.	Rep.	Buenos Ayres, Rosario
Chili	Rep.	Santiago, Valparaiso, Iquique
Uruguay	Rep.	Montevideo
Paraguay	Rep.	Asuncion
Bolivia	Rep.	La Paz, Potosi
Peru	Rep.	Lima, Callao
Ecuador	Rep.	Quito, Guayaquil
U.S. of Colombia	Rep.	Bogota
Panama	Rep.	Panama, Colon
Venezuela	Rep.	Caracas, La Guaira
Guiana:—		
British	Col.	Georgetown
Dutch	Col.	Paramaribo.
French	Col.	Cayenne
Falkland Ids. and South Georgia	Br.Col.	Stanley

The Products of South America

ANIMALS—Jaguar, puma, tapir, armadillo, anteater, condor, rhea, anaconda, cayman.

ANIMAL PRODUCTS—Hides, feathers, wool, llama wool, alpaca wool, tallow, mutton, fish, guano.

VEGETABLES—Coffee, cocoa, cotton, sugar, molasses, spices, fine woods, dye-woods, drugs, Peruvian bark, cocaine, ivory, wheat, flax, tobacco, india-rubber.

MINERALS—Gold, silver, copper, diamonds, emeralds, rubies, saltpetre.

7. EXPORTS AND IMPORTS:—

Country	Imports	Exports
Brazil	Manufactures, grain, flour, coal, fish.	Coffee, sugar, cotton, woods, drugs, vanilla, rubber, vegetable ivory, hides, diamonds, emeralds, rubies, cocoa, nuts, tapioca.
Argentine Republic	Manufactures	Mutton, beef, tallow, wool, hides, wheat, corn, flax, fruits.
Chili	Manufactures, fish	Nitrate, saltpetre, copper, gold, silver, guano, wheat, wool, hides.
Bolivia, Peru and Ecuador	Manufactures, fish, flour	Gold, silver, india-rubber, Peruvian bark, coca, cocaine, llama and alpaca wool, nitre, guano, vegetable ivory.
Columbia and Venezuela	Manufactures, flour, fish	Precious metals, emeralds, coffee, cotton, tobacco, sugar, panama hats, woods, rubber, medicinal plants, dyewoods.
Guiana	Manufactures, flour, fish, lumber.	Sugar, molasses, coffee, tobacco, cocoa, woods, drugs, spices, cotton.

EUROPE

1. POSITION:—

Europe is in the North Temperate and Arctic Zones.

It is West of Asia and North of Africa.

Compare the latitude with that of Canada; and account for the higher temperature of Europe.

2. BOUNDARIES:—

NORTH—**Arctic Ocean.**

WEST—**Atlantic Ocean.**

SOUTH—**Gibraltar, Mediterranean, Ægean, Dardanelles, Marmora, Bosphorus, Black; Caucasus Mts.**

EAST—**Ural Mts., Ural River and Caspian Sea.**

3. THE SURFACE:—

Europe forms the Western Part of the Eurasian Continent.

GREAT SOUTHERN PLATEAU:—
The Eurasian Highlands.

AXIS—The Alps—the highest peak is Mount Blanc.

RANGES RADIATING FROM THIS CENTRE:—
Black Forest, Bohemian, Carpathian;
Dinaric Alps, Balkan; Caucasus;
Apennines;
Jura Alps, Cevennes, Pyrenees;
Cantabrian, Sierra Morena, Sierra Nevada;
Vosges.

PEAKS—Blanc, Rosa; Cenis, St. Gothard, St. Bernard, Vesuvius, Etna, Stromboli; Olympus.

THE NORTHERN HIGHLANDS:—

RANGES—Ural, Scandinavian, Grampian.

PEAK—Hecla, in Iceland.

GREAT CENTRAL PLAIN—It runs east and west and is a continuation of the Siberian Plain.

(1) Part sloping to the north-west.

(2) Part sloping to the south-east.

4. DRAINAGE:—

GREAT CENTRAL PLAIN—

INTO THE ARCTIC—Petchora, Dwina.

INTO THE BALTIC SEA—Neva, Duna, Vistula, Oder.

INTO THE NORTH SEA—Elbe, Weser, Rhine, Thames.

INTO THE ENGLISH CHANNEL—Seine.

INTO THE BAY OF BISCAY—Loire, Garonne.

INTO THE BLACK SEA—Danube, Dniester, Dnieper.

INTO THE SEA OF AZOV—Don.

INTO THE CASPIAN SEA—Volga, Ural.

LAKES—Ladoga, Onega.

THE GREAT SOUTHERN SLOPE

INTO THE ATLANTIC—Douro, Tagus, Guadiana, Guadalquiver.
INTO THE MEDITERRANEAN SEA—Ebro, Rhone, Tiber.
INTO THE ADRIATIC SEA—Po.
INTO THE BLACK SEA—Danube—Drave, Save, Theiss.
LAKES—Geneva, Constance; Como, Maggiore, Garda.

THE NORTHERN ISLANDS—

RIVERS—These are short and unimportant.
LAKES—Wener, Wetter, Malar.

5. COAST FEATURES—WATERS:—

Europe has the most broken coast-line of all the continents. Notice the important influence this has on the climate and on navigation and commerce.

(1) OCEANS:—Arctic, Atlantic.
(2) SEAS:—White, Baltic, North, Irish; Mediterranean, Tyrrhenian, Adriatic, Ionian, Ægean, Marmora, Black, Azov; Caspian—really a salt lake.
(3) GULFS AND BAYS:—Bothnia, Finland, Riga, Biscay; Lyons, Genoa, Taranto, Venice, Corinth, Salonica, Perekop.
(4) STRAITS AND CHANNELS:—Sound, Great Belt, Little Belt, Cattegat, Skager Rack, Dover, English, St. George's, North; Gibraltar, Bonifacio, Messina, Otranto, Dardanelles, Bosphorus, Yenikale.

6. COAST FEATURES—LAND:—

These form one-fourth of the Continent.

(1) CAPES:—North, Naze, Skaw, Wrath, Clear, Land's End, La Hague, Ortegal, Finisterre, St. Vincent, Trafalgar; Passero, Spartivento, Matapan.
(2) PENINSULAS:—Scandinavia, Denmark, Spain and Portugal, Italy, Greece, Morea, Crimea.
(3) ISTHMUSES:—Kiel, Corinth, Perekop.
(4) ISLANDS:—Nova Zembla, Loffoden; Gothland, Oland; Aland, Dago, Œsel; Rugen, Zealand, Funen, Lapland. Bornholm; Iceland, Faroe;

British Isles—Great Britain, Ireland, Shetland, Orkney, Hebrides; Man, Channel Islands.

Balearic—Majorca, Minorca, Iviza;

Corsica, Sardinia, Elba; Lipari, Malta; Ionian, Crete, Cyprus, The Archipelago.

POLITICAL DIVISIONS AND CHIEF CITIES

GREAT BRITAIN—King:—London, Glasgow, Birmingham, Liverpool, Manchester, Newcastle.—See England and Scotland.

IRELAND—Br. Dom.:—Dublin, Belfast, Cork.

FRANCE—Rep.:—Paris, Marseilles, Lyon, Limoges, Lille, Strasbourg, Reims.

SWITZERLAND:—Bern, Zurich, Basel, Geneva.

ITALY—King:—Rome, Naples, Milan, Venice, Turin, Trieste, Florence, Bologna, Genoa, Leghorn, Palermo, Syracuse.

SPAIN—King:—Madrid, Barcelona, Granada, Valencia.

PORTUGAL—Rep.:—Lisbon, Oporto.

NORWAY—King:—Christiana, Bergen.

SWEDEN—King:—Stockholm, Gothenburg.

DENMARK—King:—Copenhagen, Elsinore.

NETHERLANDS—King:—The Hague, Rotterdam.

BELGIUM—King:—Brussels, Antwerp, Liege.

LUXEMBURG—Duchy:—Luxemburg.

GERMANY—Rep.:—Berlin, Hamburg, Munich, Leipsic, Dresden, Cologne, Breslau, Bremen, Frankfort.

POLAND—Rep.:—Warsaw, Posen, Cracow, Lodz.

DANZIG—a free city.

CZECHO-SLOVAKIA—Rep.:—Prague, Brunn, Marienbad.

AUSTRIA—Rep.:—Vienna, Innsbruck.

HUNGARY—Rep.:—Budapest.

JUGO-SLAVIA—King:—Belgrade, Monastir.

ALBANIA—King:—Durazzo.

RUMANIA—King:—Bucharest, Kronstadt, Galatz.

BULGARIA—King:—Sofia, Philippopolis.
TURKEY:—Constantinople.
GREECE—King:—Athens, Piraeus, Salonica.
RUSSIA—Rep.:—Moscow, Petrograd, Nijni Novgorod, Astrakhan.
FINLAND—Rep.:—Helsingfors.
ESTHONIA—Rep.:—Revel.
LATVIA—Rep.:—Riga.
LITHUANIA—Rep.:—Vilna.

PRINCIPAL EXPORTS

GREAT BRITAIN:—Manufactures of steel, cotton, woollens, porcelain, carpets, coal.
IRELAND:—Live stock, dairy produce, linen, ships.
FRANCE:—Wheat, wine, brandy, coal, iron, silk, lace, cottons.
SWITZERLAND:—Cheese, watches, clocks, toys, silk.
ITALY:—Fruit, grain, silk, textiles, sulphur, hats.
SPAIN:—Fruit, wine, almonds, raisins, figs, iron, copper, textiles, cork.
PORTUGAL:—Fruit, wine, cereals.
NORWAY:—Timber, lumber, wood pulp, iron, steel, fish, oysters, oils.
SWEDEN:—Iron ore, iron, lumber, pulp, cereals, cattle, sheep.
DENMARK:—Butter, eggs, bacon, fish, live stock.
NETHERLAND—Butter, cheese, sugar, bulbs.
BELGIUM:—Butter, cheese, textiles, iron and steel, fish.
LUXEMBURG:—
GERMANY:—
POLAND:—Lumber, iron, coal.
CZECHO-SLOVAKIA:—Foods, sugar, lumber, textiles, glassware.

AUSTRIA:—Cereals, textiles, iron goods, cutlery.
HUNGARY:—Corn, wheat, flour, sugar, liquors.
JUGO-SLAVIA:—Wheat, prunes, brandy.
ALBANIA:—
RUMANIA:—Wheat, flour, lumber, petroleum, salt, live stock, gold, textiles.
BULGARIA:—Corn, wheat, silk, oil, greases.
TURKEY:—
GREECE:—Currants, wheat, corn, olives, oil, figs.
RUSSIA:—
FINLAND:—Wood products, lumber, pulp wood.
ESTHONIA:—Lumber, pulp, paper, textiles.
LATVIA:—Lumber, grain, flax, hides, anchovies.
LITHUANIA:—Timber, pulp wood, cereals, flax.

GREAT BRITAIN

Capital, London

1. POSITION:—Notice the insular character of these countries and their position as regards the Gulf Stream.

Notice the influence of these on the climate and on the occupations of the people.

2. BOUNDARIES:—EAST:—**North Sea;**
SOUTH:—**Str. of Dover, English Channel;**
WEST:—**St. George's, Irish, North, Atlantic.**

3. SURFACE:—ENGLAND AND WALES:—Mountains in the north and west; hilly in the south; the centre and east a fertile plain.

SCOTLAND:—Mountainous in the north and west; hilly in the south; an undulating plain in the centre.

IRELAND:—Mountainous or hilly in the north, west and south; a plain in the centre.

4. BRITAIN'S EXPORTS:—Consist of coal and manufactured goods in the following order of value:—cottons, woollens, and worsteds, hardware and cutlery, coal, machinery, linens, carpets, pottery, books, salt.

5. HER IMPORTS:—Consist mainly of foods and materials for manufacturing, including:—grain, sugar, tea, rice, spices, meats, cheese, fruits, nuts, butter and eggs; tobacco, wines and spirits, cotton, wool, silk, flax and hemp, timber, cabinet woods, teak, hides, petroleum, dyestuffs, drugs.

Where do these come from?

What parts of the British Empire could supply them in any large quantities?

ENGLAND AND WALES

1. SURFACE:—

MOUNTAINS:—**Cheviot, Pennine, Cambrian.**

PEAKS:—**Skawfell, Crossfell, Skiddaw, Snowdon.**

HILLS:—Malvern, Cotswold, Chiltern, Mendip, North and South Downs, Cornish Heights, Exmoor, Dartmoor.

2. DRAINAGE:—

RIVERS:—Tyne, Tees, Humber, Ouse, Trent, Welland, Great Ouse, Thames; Severn, Avon, Wye, Dee, Mersey.

LAKES:—Derwentwater, Ulleswater, Windermere.

3. COAST FEATURES—WATERS:—

OCEAN:—Atlantic.

SEAS:—North, Irish.

BAYS:—The Wash, Mounts, Barnstaple, Swansea, Caermarthen, Cardigan, Caernarvon, Morecambe, Solway.

STRAITS AND CHANNELS:—Dover, English, Solent, Spithead, Bristol, St. George's, Menai.

4. COAST FEATURES—LAND:—

CAPES:—Flamborough, Spurn, The Naze, N. and S. Foreland, Beachy, Start, The Lizard, Land's End, Hartland, St. David's Braichy-y-pwll, St. Bees.

PENINSULAS:—Norfolk and Suffolk, Kent, Devon and Cornwall, South West Wales.

ISLANDS:—Lindisfarne, Sheppey, Thanet, Wight, Scilly, Anglesey, Holy. (Channel, Man.)

5. CHIEF CITIES

London, Liverpool, Bristol, Hull, Newcastle-upon-Tyne, Sunderland, Plymouth, Southampton, Manchester (cottons), Leeds (woollens); Birmingham (hardware); Sheffield (cutlery); Bradford (worsteds); Leicester (hosiery); Nottingham (hosiery, lace); Kidderminster (carpets); Hanley (pottery); Swansea (copper); Merthyr-Tydvil (iron); Cardiff (coal);

NAVAL STATIONS:—Portsmouth, Devonport, Chatham.

PLACES OF NOTE:—Cambridge, Oxford, Canterbury, York; Winchester, Lincoln, Greenwich, Woolwich, Stratford.

SCOTLAND

1. Surface:—

Mountains:—**The Grampians, the Highlands of Perthshire, Rosshire and Sutherland, and the Cuillin Hills in Skye.**

Peaks:—Ben Nevis, Lomond.

Hills:—**Ochil, Pentland, Lammermuir, Lowther, Cheviot.**

2. Drainage:—

Rivers:—**Spey, Dee, Tay, Forth, Tweed; Teviot, Nith, Clyde; Caledonian Canal.**

Lakes:—**Ness, Tay, Lmond, Katrine, Awe.**

3. Coast Features—Waters:—

Ocean:—**Atlantic.**

Seas:—**North, Irish.**

Bays:—**Moray, Dornoch; Tay, Forth; Linnhe, Clyde, Luce, Wigton, Solway.**

Straits and Channels:—**Pentland, Minch, Little Minch, Harris, Sleat, Mull, Jura, Islay, Kilbrannan, North.**

4. Coast Features—Land:—

Capes:—**Duncansby, Tarbet, Kinnairds, Fife, St. Abb's; Wrath, Lewis, Aird, Cantire, Galloway, Burrow.**

Peninsulas:—**Cantire, Wigtown.**

Islands:—**Shetland, Orkney, Hebrides, Skye, Mull, Jura, Islay, Arran, Bute.**

Chief Cities:—**Edinburgh, Glasgow Greenock, Dundee, Aberdeen, Leith; Glasgow** (ships, engines, textiles); **Paisley** (tartans, carpets, threads); **Dundee** (linens); **Ayr** (carpets, blankets); **Inverness** (ships).

Universities:—**Edinburgh, Glasgow, Aberdeen, St. Andrews.**

Places of Note:—**Stirling, Bannockburn, Culloden, Loch Katrine, Loch Lomond, Culloden Moor.**

IRELAND

1. Surface:—

Mountains:—Donegal, Sperrin, Mourne, Wicklow, Knockmealdown, McGillicuddy Reeks.
Plain:—The centre of the island.

2. Drainage:—

Rivers:—Foyle, Bann, Lagan, Boyne, Liffey, Slaney, Barrow, Nore, Suir, Blackwater, Lee, Shannon, Erne.
Lakes:—Neagh, Erne, Ree, Derg, Mask, Corrib, Killarney

3. Coast Features—Waters:—

Ocean:—Atlantic.
Sea:—Irish.
Bays and Harbors:—Swilly, Foyle, Belfast, Strangford, Carlingford, Dundrum, Dundalk, Dublin, Wexford, Waterford, Dungarvan, Cork, Bantry.. Kenmare, Dingle, Galway, Clew, Donegal.
Channels:—North, St. George's.

4. Coast Features—Land:—

Capes:—Malin, Fair, Howth, Carnsore, Clear, Mizzen, Dunmore, Loop, Slyne, Achil, Rossan.
Islands:—Rathlin, Clear, Valentia, Aran, Achill.
Chief Cities:—Dublin, Belfast, Cork, Queenstown, Londonderry, Limerick, Waterford; Belfast (linens); Londonderry (linens, flax, yarn); Limerick (lace, gloves).
Places of Note:—Killarney, Kilkenny, Valentia Id.
Exports:—Cattle, dairy produce, linens, ships.

THE BRITISH EMPIRE

Capital, London, England

Area, 11,400,000 sq. miles. Population, 410,000,000.

The British Empire is the greatest empire the world has ever known—greatest in the vast area of which it is composed—greatest in the number of its component parts—greatest in the number of its subjects—greatest in the enterprise and loyalty of her sons and daughters and the liberty which they enjoy—greatest in its wealth and commerce—greatest in her naval powers and greatest in her influence for progress and righteousness within her own borders and among the nations of the world.

The sun never sets on Britain's possessions. Her dependencies are in every clime. Her ships ride on every water. Her money is invested in every important enterprise. Her sons are found in every land. Her flag flies in every port, and she is associated with every good cause. Her market is the centre of the commercial and financial world, and the products of her factories are sold over every counter.

It is composed of (1) the Motherland, the United Kingdom of Great Britain, (2) The Empire of India, and (3) The British Dominions beyond the seas. These numberless dependencies consist of protectorates, crown colonies and self-governing possessions, some having representative government and some having responsible government. Now it is proposed to unite these into one great commercial federation, favoring each other in trade.

A Protectorate or Mandate is a country under the protection of another, who guards it from foreign invasion and has some control in the management of its affairs

A Crown Colony is one in which the crown has entire control in the making of the laws and the appointing of officers to carry on its government.

A Self-governing Colony is one whose government is intrusted to its inhabitants to be carried on according to a constitution.

A Representative Government is one whose cabinet, or government, is assisted by representatives elected by the people, to whom the cabinet is not responsible.

A Responsible Government is one whose cabinet must have the support of the majority of the representatives of the people—the parliament—to remain in office.

Britain's security depends on the loyalty of her sons and the strength of her navy. She must guard the avenues of commerce to secure food for her people, raw material for her manufacturers, and markets for her wares. In every part of the globe she maintains fortified coaling stations and arsenals to supply the wants of any of her fleets, as well as dockyards for the repairing of her ships in case of injury.

THOROUGHLY FORTIFIED STATIONS:—

Throughly Fortified Coaling Stations are maintained at Albany (W.A.), Auckland, Bermudas, Bombay, Cape Town, Colombo, Esquimalt, Falkland, Freetown, Gibraltar, Halifax, Hong Kong, Jamaica, Malta, Mauritius, Thursday Island (Torres Strait), St. Helena, St. Lucia, Singapore, Sydney.

PARTLY FORTIFIED STATIONS:—

Partly Fortified Coaling Stations are maintained at Adelaide, Brisbane, Calcutta, Christchurch, Durban, Fiji, Hobart, Kutch, Labuan, Quebec, St. John's.

NAVAL DOCKYARDS:—

Naval Dockyards are at Antigua, Ascension, Bermuda, Bombay, Calcutta, Cape of Good Hope, Chatham, Devonport, Gibraltar, Haulbowline, Hong Kong, Malta, Pembroke, Portland, Portsmouth, Sheerness, Sydney, Wei-hai-wei, West India Docks.

THE BRITISH EMPIRE

EUROPE:—

RESP:—Great Britain, Ireland.
REP:—Man; Channel Islands.
CR:—Malta; Cyprus; Gibraltar.

NORTH AMERICA:—

RESP:—Canada; Newfoundland.
REP:—Bermudas; Bahamas; Leewards; Windwards; Barbadoes.
CR:—Jamaica; British Honduras.

SOUTH AMERICA:—

REP:—British Guiana.
CR:—Trinidad; Falkland Islands and S. Georgia.

ASIA:—

CR:—India and Burmah; Ceylon; Straits Settlements; Hong Kong; Labuan.
PROT:—Cashmere, Nepaul, Bhotan, etc.; Beluchistan, Palestine, Mesopotamia; Aden, Perim, and Socotra; Bahrein; British North Borneo; Sarawak.

AFRICA:—

RESP:—Union of South Africa.
CR:—Anglo Egyptian Soudan, Zanzibar, Rhodesia, Nigeria, St. Helena, Ascension, Mauritius, Seychilles.
PROT. OR MAN:—Somaliland, Uganda, East Africa, Nyasaland, Bechuanaland, Basutoland, S.W. Africa, Gambia, Sierra Leone, Gold Coast.
NAVAL STATION:—Ascension.

OCEANIA:—

RESP:—Australia; New Zealand.
CR:—Fiji Lslands; British New Guinea.
PROT:—New Hebrides, Tonga, Cook, Pitcairn, Ellice, Gilbert, Phoenix, Norfolk, etc.

IMPERIALISM

The Imperialists of the Empire are proposing that this host of nations should form themselves into a commercial or fiscal union, each offering a preference to the products of the sister nations, and each contributing a fair portion to the maintenance of the Empire.

Such a union would admit of the independence and integrity of each individual member in all local affairs, but a co-operation in those questions which affect the whole. It would encourage an exchange of commodities between those whose interests are identical and whose ideals are similar. It would furnish a market for the natural commodities each produces to advantage. Each would share in the security such a union would provide, and each would contribute a fair share of the expense incurred.

Britain to-day buys ten times as much foods and raw material as the colonies export; but the rapid settlement of these distant dependencies, and the marvellous development of their apparently limitless resources, give promise of a time when the British Empire may be self-dependent' the colonies supplying all the food the congested homeland requires, and as much raw material as her factories can use.

RAW PRODUCTS OF THE EMPIRE

Arranged in order of importance.

Coal:—G.B., Ind., Can., Aust., N.Z., Nat., U.S.A.
Iron Ore:—G.B., Nfd., Can., Ind., Aust.
Pig Iron:—G.B., Can.
Wheat:—Ind., Can., Aust., G.B., N.Z., Cyp., U.S.A.
Raw Sugar:—Ind., Br. Guiana, W.I., Aust., U.S.A.
Cotton:—Ind., W.I., Malta, Cyp., W. Af., Cey., Aust.
Wool:—Aust., N.Z., G.B., Cape, Ind., U.S.A., Can.
Tea:—India, Ceylon, U.S.A.
Coffee:—India, Ceylon, West Indies.

ASIA

1. Position, Extent, and Population:—

a. From Equator to beyond Arctic Circle.
Compare with the latitude of North America.

b. Forms the eastern part of Eurasia.
Connected with Africa by the Isthmus of Suez.

c. The largest of the continents. Contains one-third of the land surface of the globe and more than one-half the people of the world.

2. BOUNDARIES:—

NORTH:—Arctic Ocean.
EAST:—Bering Strait, Bering Sea, Pacific Ocean.
SOUTH:—Indian Ocean.
WEST:—Bab-el-Mandeb, Red, Suez (Gulf and Canal), Mediterranean, Ægean, Dardanelles, Bosphorus, Black, Caucasus, Caspian, Ural River and Mountains.

3. SURFACE AND DRAINAGE

I. THE GREAT CENTRAL PLATEAU:—

AXIS:—The Pamir—
RANGES RADIATING FROM THIS CENTRE:—
Himalayas; Kuenlun, Peeling, Nanling;
Thian, Shan, Altai, Yablonoi, Stanovoi;
Soliman, Western Ghauts, Eastern Ghauts;
Hindoo Koosh, Elburz, Caucasus, Taurus; Ural.
PEAKS:—Everest, Elburz, Ararat, Sinai.
PASSES;—Bolan, Khyber.
DESERTS:—The continuation of Sahara Desert:—
Arabian, Syrian, Great Salt, Turkestan, Gobi, Indian.
PLATEAUS:—Iran, Pamir, Thibet, Gobi.

The mountains of Asia are the largest and the highest in the world. Most of the ranges run from east to west. They give shape to the continent, decide the direction and length of the rivers and affect the climate and products of the countries, and the occupations of the people.

II. THE NORTHERN SLOPE:—

RIVERS:—Obi, Yenisei, Lena.
These run through the mossy tundras.
LAKE:—Baikal.

III. THE EASTERN OR PACIFIC SLOPE:—

RIVERS:—Amoor, Peiho, Hoang-ho, Yang-tse-kiang, Canton, Mekong, Meinam;
They run through alluvial plains of great fertility.
All are navigable for great distances.

IV. THE SOUTHERN OR INDIAN SLOPE:—

RIVERS:—Saluen, Irawady, Brahmapootra, Ganges, (Hugli), Indus, Tigris, Euphrates—Shat-el-Arab.

V. CENTRAL BASIN

RIVERS:—Oxus, Sihon, Ural—towards lakes below sea level.

LAKES:—Balkash, Aral, Caspian—all without a visible outlet; water brackish or salty.

NOTE:—The Jordan flows into the Dead Sea which is 1,300 feet below sea-level.

COAST FEATURES

OCEANS:—Arctic, Pacific, Indian.

SEAS:—Kara; Bering, Okhotsk, Japan, Yellow, China, Celebes, Java; Arabian; Red, Mediterranean, The Levant, Ægean, Marmora, Black, Caspian.

GULFS AND BAYS:—Obi; Anadir, Pechele, Tartary, Siam; Martaban, Bengal, Manaar, Cambay, Cutch, Oman, Persian, Aden, Suez.

STRAITS AND CHANNELS:—Bering, La Perouse, Tartary, Corea, Formosa, Hainan, Macassar, Sunda; Malacca, Palk, Ormuz, Bab-el-Man-deb; Dardanelles, Bosphorus.

CAPES:—Lopatka, Cambodia, Romania, Negrais, Dondra, Cormorin, Ras-el-Had.

PENINSULAS:—Kamchatka, Korea, Indo-China, Malay, Hindostan, Arabia, Asia Minor.

ISTHMUSES:—Suez, Kraw.

ISLANDS:—New Siberia; Aleutian, Saghalien, Kurile, Japan,—Yezo, Hondo, etc.,—Liu-kiu, Formosa, Hainan.

Philippine, Borneo, Java, Sumatra, Singapore.

Andaman, Nicobar, Ceylon, Maldive, Laccadive, Perim; Cyprus.

COUNTRIES AND CHIEF TOWNS

RUSSIA IN ASIA:—Tiflis, Bokhara, Khiva, Tobolsk, Vladivostock.

CHINESE REPUBLIC:—Peking, Nankow, Tsintsin, Handschow, Ningpo, Fuchow, Changsha, Shanghai, Amoy, Canton.

CHINA:—Peking.

MANCHURIA:—Mukden.

MONGOLIA:—Urga.

SINKIANG:—Urumshi.

TIBET:—Lhasa.

JAPAN:—Tokyo, Osaka, Kioto, Yokohama,

CHOSEN:—Seoul.

FORMOSA:—Taiwan.

KWANTUNG:—

FRENCH INDO-CHINA:—Hue.

SIAM:—Bangkok.

STRAIT SETTLEMENTS:—Singapore.

DUTCH EAST INDIES:—Batavia.

PHILIPPINE ISLANDS:—Manilla.

INDIA AND BURMAH:—Delhi, Calcutta, Bombay, Madras, Hyderabad, Rangoon, Benares, Lucknow, Agra, Mandalay, Cawnpore, Bangalore, Lahore, Allahabad.

Then 28 cities with a population of over 100,000; and 48 cities with a population of over 50,000.

CEYLON:—Colombo.

AFGHANISTAN:—Kabul, Herat, Kandahar.

BELUCHISTAN:—Kalat.

PERSIA:—Teheran, Ispahan, Bushire.

MESOPOTAMIA:—Mosul.

OMAN:—Muscat.

HADJAZ:—Mecca, Medina.

PALESTINE:—Jerusalem.

SYRIA:—Beirut, Aleppo.

COMMERCE OF ASIA:—

Commerce is retarded by lack of means of transportation and the exclusiveness of some of the nations and religions. Railways are almost absent and trade is carried on by means of caravans and boats. The great Russian railway across the continent should be of immense importance.

7. EXPORTS:—

RUSSIA IN ASIA:—Minerals, furs, hides, tallow, grain, ivory.

CHINESE EMPIRE:—Tea, silk, wool, sugar, porcelain, fireworks, camphor, tobacco, lacquered ware.

JAPAN:—Tea, silk, porcelain, camphor, Japanese goods.

FR. INDO-CHINA:—Cotton, sugar, rice, gums, spices, dyewoods.

DUTCH EAST INDIES:—Coffee, sugar, spices, sago, gutta-percha, camphor, dyewoods.

PHILIPPINE IDS:—Manilla hemp, spices, sugar, coffee.

INDIA:—Cotton, opium, rice, wheat, indigo, hemp, jute, coal, iron ore, tea, sugar, coffee, wool.

CEYLON:—Tea, coffee, cinnamon, pearls, rice.

PERSIA:—Silks, shawls, carpets, dried fruits, pearls.

HADJAZ:—Spices, coffee, gums, dates.

SYRIA:—Dried fruits, silk, oil, gums.

TURKEY IN ASIA:—

8. IMPORTS:—

CHINESE EMPIRE:—Cottons, woollens, opium, metals.

JAPAN:—Cottons, woollens, sugar, machinery.

INDIA:—Precious metals, cottons, machinery, army supplies, clothing, foods.

The general imports of other countries are manufactures of cloth and metal goods.

AFRICA

1. POSITION AND EXTENT

Extends about 35° on each side of equator. Most of the continent is in the Torrid Zone. Compare the latitude with that of South America and Australia.

2. BOUNDARIES:—

NORTH:—Str. of Gibraltar and Mediterranean.
EAST:—Suez, Red, Bab-el-Mandeb, Aden, Indian.
WEST:—Atlantic Ocean.

3. SURFACE:—The Great Southern Plateau.
The Northern Plateau.
The Great Central Plain:—**The Sahara.**
The Coast Region which skirts the continent—**low, narrow, unhealthy.**
Ranges:—**Abyssinian, Lupata, Drakenberg, Nieuwveld, Cameroon, Kong, Senegambia, Atlas.**
Peaks:—**Kenia, Kilima Njaro.**
Deserts:—**Sahara, Nubian, Egyptian, Libyan, Kalahari.**

The Sahara Plain consists of sandy and rocky hills, plains and depressions. Rain falls only on the highlands, and rivers are lost in the sand. The sky is cloudless so that during the day the heat is oppressive, and the nights are cold. Sand storms are prevalent. The Simoon, Sirocco, and Harmattan, are local periodic winds which blow from this desert region. In the oases where there is no rain, and where vegetation is sustained by underground streams of water, the date palm flourishes to perfection. Trade is carried on by means of caravans.

The Southern Plateau comprises the whole of the southern part of the continent. Abundance of rainfall and gives rise to large lakes and the great rivers of Africa. The northern part consists of grazing land. A dense forest covers the country for 10° on each side of the equator. The whole region is skirted by the ranges of mountains which extend from Abyssinia along the eastern, southern and western coasts.

The Northern or Barbary Plateau is a succession of terraces. It is well watered and very fertile.

4. DRAINAGE:—

Although the rivers are large, navigation is interrupted by falls and rapids as they break through to the coastal region, and by sand bars at the mouths of the rivers.

RIVERS:—Nile (Sobat, Blue Nile, Atbara); Shari.
Juba, Zambesi, Limpopo.
Niger, Congo and tributaries; Orange, (Vaal).

WATERFALLS:—ON THE NILE:—1st, 2nd, 3rd, 4th, 5th and 6th cataracts, Murchison Falls and Assouan Dam.

ON THE ZAMBESI:—Victoria Falls.

ON THE CONGO:—Stanley Falls.

LAKES:—Victoria Nyanza, Albert Nyanza, Dembea; Tanganyika, Bangweolo, Nyassa; Chad.

COAST FEATURES—WATERS:—The coast is unbroken on account of the simplicity and direction of the mountain system.

OCEANS:—Atlantic, Indian.

SEAS:—Mediterranean, The Levant, Red.

GULFS AND BAYS:—Cabes, Sidra, Suez, Aden, Sofala, Delagoa, Guinea, Biafra, Benin.

STRAITS AND CHANNELS:—Gibraltar, Bab-el-Mandeb, Mozambique.

CANAL:—Suez—"England's Key to India."
Port Said to Suez, 100 miles, cost $100,000,000.
Notice its commercial and political importanee.

5. COAST FEATURES—WATERS:—
The coast is unbroken on account of the simplicity and direction of the mountain system.

6. COAST FEATURES—LAND:—

CAPES:—Spartel, Bon, Guardafui, Corrientes, Good Hope, Lopez, Palmas, Verde, Blanco.

PENINSULAS:—Somali.

ISTHMUSES:—Suez.

ISLANDS:—BRITISH:—Perim, Socotra, Zanzibar, Mauritius and Seychelles, St. Helena, Ascension.

FRENCH:—Madagascar, Reunion (Bourbon), Comoro.

SPANISH:—Canary, Fernando Po, Annobon.

PORTUGUESE:—Azores, Cape Verde, Madeira, St. Thomas.

COUNTRIES AND CHIEF TOWNS:—

MOROCCO—Fr.:—**Fez, Tangier,**—leather, cereals, fruit, dates, silks, carpets.

ALGERIA—Fr.:—**Algiers,**—cereals, fruit, cork, rice.

TUNIS—Fr.:—**Tunis, Carthage,**—cereals, fruit, tobacco, dates, wool, feathers, gold dust, ivory.

LIBYA—It.:—**Tripoli,**—dates, gold, istrich feathers.

EGYPT—Ind.:—**Cairo, Alexandria, Assouan,**—cotton, sugar, wheat, rice, dates.

ANGLO-EGYPTIAN SOUDAN—Br.:—**Khartoum,**—ivory, rubber, gold, gum arabic, hides.

ABYSINNIA—Ind.:—**Addis, Ababa.**

ERITREA—It.:—**Massawa,**—hides, meat, pearls, salt.

SOMALILAND—Br.:—**It.**

UGANDA—Br.:—**Kampola**
KENYA—Br.:—**Mombasa**
TANGANYIKA—Br.:—**Ujiji**
} rubber, coffee, cotton, ivory. gum, arabic, copra.

ZANZIBAR—Br.:—**Zanzibar,**—cloves, spices, coffee.

MOZAMBIQUE—Port:—**Mozambique,**—sugar, rubber, nuts, gold, tin.

NYASALAND—Br.:—**Zomba,**—cotton, rubber, coffee, tobacco.

RHODESIA—Br.:—**Salisbury,**—cattle, sheep, wheat, cotton, gold, diamonds.

BECHUANALAND—Br.:—cattle raising.

UNION OF SOUTH AFRICA:—**Cape Town.**

CAPE OF GOOD HOPE:—**Cape Town,**—wool, mohair, diamonds, feathers, fruits, hides.

ORANGE FREE STATES:—**Bloemfontain,**—wool, wheat.

TRANSVAL—**Pretoria, Johannesburg,**—gold, farm pro.

NATAL:—**Pietermaritzburg, Durban,**—fruits, cereals, sugar, tea, minerals.

MADAGASCAR—Fr.:—**Antananarivo,**—sugar, rice, coffee, cotton, rubber.

SOUTH-WEST AFRICA—Br.:—**Windhoek,**—minerals, diamonds.

ANGOLA—Port.:—**Loanda,**—rubber, coffee, cereals, tobacco.

CONGO—Belg.:—**Boma,**—rubber, ivory, palm oil, coffee, cotton, cocoa, copper.

EQUATORIAL AFRICA—Fr.:—**Brazizville,**—ivory, palm oil, rubber, dates.

NIGERIA—Br.:—**Lugos,**—rubber, cotton, ivory, tin, timber

WEST AFRICA:—Var,—gold, rubber, palm oil, ivory, cocoanuts, timber.

8. COMMERCE:—

Africa has great natural resources and although the people are indolent and their methods of work inferior, the products are numerous and valuable. The European trading stations, which are established all along the coast, are frequented by native traders. Trade is largely carried on by barter.

The means of transportation include boats on the rivers, steamboats on the Congo and the Zambesi, caravans in the interior. Railways are being built at the north and the south. The "Cape to Cairo" railway scheme is progressing. At the south a British railway reaches from Cape Town, past Victoria Falls, on to Katanga, and at the north from Alexandria to Khartoum. The Uganda Railway was completed from Mombosa on the coast to the shores of Victoria Nyanza. These will play an important part in opening up the country. The slave-trade is being suppressed; but the "gin-trade" is proving as great a curse—another form of slavery.

9. THE PRODUCTS INCLUDE:—

Fruits:—Figs, dates, olives, tamarinds, oranges, lemons, bananas, pomegranates, European fruits.

Grains:—Wheat, rice, maize, barley.
Palm:—Dates, sago, oil.
Various:—Coffee, cotton, spices, dyewoods, gums, wool, ivory, hides, ostrich feathers, teak, rubber, beeswax.
Minerals:—Gold, diamonds, copper, iron, salt.
Manufactures:—Leather, silk, carpets, sugar, indigo.

10. IMPORTANT COMMERCIAL CITIES:—

Cairo:—Inland and foreign trade, beauty, western civilization and education.
Alexandria:—Egyptian port.
Tunis:—Caravan, trade, exports—manufactures, grain, wool, fruit, ostrich feathers, gold dust, ivory.
Fez:—Silks, leather, carpets.
Algiers:—Grain, fruit.
Tripol:—Good harbor, caravan trade; exports as Tunis.
Zanzibar:—Ivory, copal gum, cloves, sugar, cotton, coffee.
Cape Town:—Wool, hides, ostrich feathers.
Lagos:—Gold, palm oil, ivory.
Johannesburg:—Gold. **Kimberly:**—Diamonds.

OCEANIA:—

I. Australasia:—The larger islands, south-east of Asia.
II. Polynesia:—The smaller islands, in the Pacific Ocean.

AUSTRALASIA:—

Sumatra:—Dutch—Coffee, pepper, sugar, rice.
Java:—Dutch—Coffee, sugar, tea, rice, indigo, pepper, tobacco.
Borneo:—Spices, sugar, coffee, etc.
Celebes:—Dutch—Coffee.
Moluccas or Spice:—Dutch—Cloves, nutmeg.
Timor:—Spices, sugar, coffee, etc.
New Guinea:—Dutch and British—Tropical Products.
New Zealand:—British—Wool, frozen meat, butter, cheese, grain, timber, gold.
Australian Commonwealth—See page 111.

POLYNESIA:—

Ladrone (Br.)	New Hebrides (Br.)	Tonga or Friendly
Caroline (Br.)	New Caledonia (Fr.)	Cook (Br.)
Marshall (Br.)	Fiji (Br.)	Society (Fr.)
Bismark (Br.)	Samoa (U.S., Br.)	Marquesas (Fr.)
Solomon (Br.)	Phoenix (Br.)	Hawaian (U.S.)

These islands are of volcanic, or of coral formation. Those of volcanic formation are high and mountainous and very fertile. The islands of coral formation are low, the rainfall slight, and the soil not very fertile.

They produce sugar, spices, cotton, fruit, rice, hides wool, copra, etc.

AUSTRALIAN COMMONWEALTH

Capital, Canberra, in N.S.W.

Temporary Capital—Melbourne.

1. POSITION:—SOUTH-EAST OF ASIA—In the Torrid and the South Temperate Zones. Compare the latitude with that of Africa and South America.
2. BOUNDARIES:—NORTH:—**Timor and Arafura Seas, Torres Strait.**

EAST:—**Coral Sea, Pacific Ocean.**

SOUTH:—**Southern Ocean.**

WEST:—**Indian Ocean.**

3. SURFACE:—RANGES:—**The Great Dividing Range, Liverpool, Blue Australian Alps, Gawler.**

PLATEAU:—**The Eastern.**

PLAIN:—**The Great Central.**

DESERTS:—**Great Victoria, Sandy, Stony.**

4. DRAINAGE:—SOUTHERN SLOPE:—

RIVERS—**Murray, Darling, Murrumbidgee.**

THE CENTRAL DEPRESSION:—RIVER—**Cooper, Eyre.**

LAKES—**Gairdner, Torrens, Eyre, Amadeus**—all without visible outlet.

5. COAST FEATURES—WATERS:—

OCEANS:—Pacific, Southern, Indian.

SEAS:—Timor Arafura, Coral.

GULFS AND BAYS:—Carpentaria, Cambridge; Botany; Great Australian Bight, Spencer, St. Vincent.

STRAITS:—Torres, Bass.

6. COAST FEATURES—LAND:—

CAPES:—York, Howe, Wilson, South, Leeuwin.

PENINSULAS:—York, Eyre.

ISLANDS:—Tasmania, Lord Howe, Norfolk.

7. POLITICAL DIVISIONS:—

STATES	CAPITALS	PRODUCTS
Queensland	**Brisbane**	Gold, wool, live stock, meat, copper, tin, shells.
New South Wales	**Sydney**	Wool, coal, gold, wheat, fruit, silver.
Victoria	**Melbourne**	Gold, tin, copper, coal.
South Australia	**Adelaide**	Wheat, wool, copper, cattle, horses, fruit.
West Australia	**Perth**	Gold, timber, wool, cabinet woods.
Tasmania	**Hobart**	Sheep, wool, fruit, gold, copper, silver, fine woods.

8. EXPORTS:—Wool (merino), hides, tallow, meats; butter and cheese, wheat; gold, tin, silver, copper, coal; timber and cabinet woods, eucalyptus.

9. IMPORTS:—Cloth, hardware, machinery, fish, tea, sugar.

NEW ZEALAND

ISLANDS:—North, South, Stewart.

CITIES:—Wellington, Auckland, Dunedin, Christchurch.

EXPORTS:—Wool, frozen meat, butter, cheese, grain, timber, gold.

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